



STIC Search Report

EIC 1700

STIC Database Tracking Number: 212613

TO: Michael Bernshteyn
Location: REM 10A34
Art Unit : 1713
January 11, 2007

Case Serial Number: 10/519133

From: Kathleen Fuller
Location: EIC 1700
REMSSEN 4B28
Phone: 571/272-2505
Kathleen.Fuller@uspto.gov

Search Notes

Since Chemical Abstracts indexes most polymers by the starting monomers I did the structure search using monomer query structures for formula 1 and formula 4. I then did a subset search of the answers with a query structure for formula 5. I also combined the answers from 1 and 4 with aldehydes or ketones (representing formula 5) in the CA file. All of the answers were modified with some utility. I marked the applicant and some other CA references which have good dates and might be useful



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- > I am an examiner in Workgroup: Example: 1713
> Relevant prior art found, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

> Relevant prior art **not** found:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

SEARCH REQUEST FORM

Scientific and Technical Information Center

Access DB#

2126B

Please expedite. The

Qc Wm 1/11/07

Requester's Full Name: MICHAEL BERNSTEIN Examiner #: 81515 Date: 01/11/2007
 Art Unit: 1713 Phone Number 30 272-2411 Serial Number: 10/519, 123
 Mail Box and Bldg/Room Location: 10A 34 Rom Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

 Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Cross-linked polyvinyl acetals
 Inventors (please provide full names): Bernard Papendubs; Martin Steiner;
Simon Jonas

Earliest Priority Filing Date: 07/04/2002

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please, try to find a polymer (according to claims 16 and 25, which contains, at least, structural units (a) of formula (1) and (d) of formula (4), which reacting with compound (B) of formula (5), whereby groups of formula (1) and of formula (4) are, at least in part, esterified with one another.

SCIENTIFIC REFERENCE BR
 Sci & Tech. Inf. Ctr.

JAN 11 2007

Pat. & T.M. Office

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>JP. F. Miller</u>	NA Sequence (#) _____	STN <u>4</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>47</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: <u>1/11/07</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>40</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>77</u>	Other _____	Other (specify) _____

=> FILE REG
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STRUCTURE FILE UPDATES: 10 JAN 2007 HIGHEST RN 917201-58-2
DICTIONARY FILE UPDATES: 10 JAN 2007 HIGHEST RN 917201-58-2

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TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

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<http://www.cas.org/ONLINE/UG/regprops.html>

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FILE COVERS 1907 - 11 Jan 2007 VOL 146 ISS 3
FILE LAST UPDATED: 10 Jan 2007 (20070110/ED)

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This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> D QUE
L44 4 SEA FILE=REGISTRY ABB=ON (123-72-8/BI OR 43158-52-7/BI OR
9003-20-7/BI OR 9011-07-8/BI)
L50 STR |
O—C=C
1 2 3

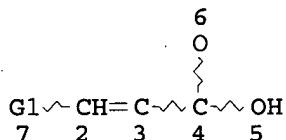
query covers formula 1

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE
L51 STR 2



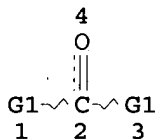
query covers formula 4

11,226 structures from structure 1 and 2

VAR G1=H/AK/COOH
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L53 11226 SEA FILE=REGISTRY SSS FUL L50 AND L51
L54 STR 3



*subset query covering formula 5
1,013 structures*

VAR G1=H/COOH/AK/CB
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE

L56	1013	SEA FILE=REGISTRY SUB=L53 SSS FUL L54
L57	546	SEA FILE=REGISTRY ABB=ON L56 AND PMS/CI
L58	7849	SEA FILE=REGISTRY ABB=ON L53 AND PMS/CI
L59	2	SEA FILE=REGISTRY ABB=ON L44 AND AL
L60	1	SEA FILE=REGISTRY ABB=ON L59 AND BUTANAL
L61	10867	SEA FILE=HCAPLUS ABB=ON L58
L62	2969	SEA FILE=HCAPLUS ABB=ON L61(L) PREP/RL
L63	933	SEA FILE=HCAPLUS ABB=ON L58/D
L64	20	SEA FILE=HCAPLUS ABB=ON L63(L) (?ALDEHYDE? OR ?KETONE? OR L60)
L65	35	SEA FILE=HCAPLUS ABB=ON L62(L) (?ALDEHYDE? OR ?KETONE? OR L60)
L66	44	SEA FILE=HCAPLUS ABB=ON L64 OR L65
L77	13	SEA FILE=HCAPLUS ABB=ON L66 AND ?ACETAL?
L78	13	SEA FILE=HCAPLUS ABB=ON L66 AND FILM#

L79 20 SEA FILE=HCAPLUS ABB=ON L77 OR L78
 L83 4894 SEA FILE=REGISTRY ABB=ON L58 NOT N/ELS
 L85 166 SEA FILE=REGISTRY ABB=ON L57 NOT N/ELS
 L86 30 SEA FILE=HCAPLUS ABB=ON L66 AND L83
 L87 139 SEA FILE=HCAPLUS ABB=ON L85
 L88 55 SEA FILE=HCAPLUS ABB=ON L87 (L) PREP/RL
 L89 1 SEA FILE=HCAPLUS ABB=ON L88 AND ?ACETAL?
 L90 8 SEA FILE=HCAPLUS ABB=ON L88 AND FILM#
 L91 34 SEA FILE=HCAPLUS ABB=ON L79 OR L86
 L92 43 SEA FILE=HCAPLUS ABB=ON L91 OR L89 OR L90

*43 CA references
polymers*

=> D L92 BIB ABS IND HITSTR 1-43

L92 ANSWER 1 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 2006:1201871 HCAPLUS
 DN 145:472805
 TI Binder for manufacturing formaldehyde-free synthetic board
 IN Huang, Daozu; Liu, Hongzhang; Wang, Chunhua; Zhou, Xuzhang
 PA Hunan Liuyang Sanxing Chemical Industry Co., Ltd.; Peop. Rep. China
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 14pp.
 CODEN: CNXXEV

DT Patent
 LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1712484	A	20051228	CN 2004-10023343	20040624
PRAI	CN 2004-10023343		20040624		
AB	The title binder comprises (by weight%) vinyl acetate-acrylate copolymer emulsion 50-70, poly(vinyl alc.) 2-4, starch 5-15, urea 4-8, calcium carbonate 3-8, 10% aqueous solution of inorg. salt 0.5-1, and water 10-15.				
IC	ICM C09J131-04				
CC	38-3 (Plastics Fabrication and Uses) Section cross-reference(s): 44				
ST	binder vinyl acetate acrylate copolymer synthetic board				
IT	Binders (acrylate-vinyl acetate copolymer-based binder for manufacturing formaldehyde-free synthetic board)				
IT	Construction materials (boards; acrylate-vinyl acetate copolymer-based binder for manufacturing formaldehyde-free synthetic board)				
IT	247163-87-7P, Acrylic acid-butyl acrylate-2-hydroxyethyl acrylate-methyl methacrylate-vinyl acetate copolymer RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylate-vinyl acetate copolymer-based binder for manufacturing formaldehyde-free synthetic board)				
IT	471-34-1, Calcium carbonate, uses RL: MOA (Modifier or additive use); USES (Uses) (acrylate-vinyl acetate copolymer-based binder for manufacturing formaldehyde-free synthetic board)				
IT	57-13-6, Urea, uses RL: NUU (Other use, unclassified); USES (Uses) (acrylate-vinyl acetate copolymer-based binder for manufacturing formaldehyde-free synthetic board)				
IT	9002-89-5, Polyvinyl alcohol 9005-25-8, Starch, uses RL: TEM (Technical or engineered material use); USES (Uses) (acrylate-vinyl acetate copolymer-based binder for manufacturing formaldehyde-free synthetic board)				

IT 247163-87-7P, Acrylic acid-butyl acrylate-2-hydroxyethyl
acrylate-methyl methacrylate-vinyl acetate copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(acrylate-vinyl acetate copolymer-based binder for manufacturing
formaldehyde-free synthetic board)

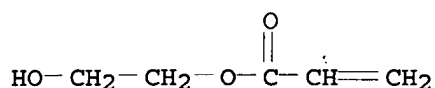
RN 247163-87-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
2-propenoate, ethenyl acetate, 2-hydroxyethyl 2-propenoate and 2-propenoic
acid (9CI) (CA INDEX NAME)

CM 1

CRN 818-61-1

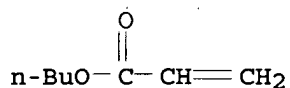
CMF C5 H8 O3



CM 2

CRN 141-32-2

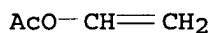
CMF C7 H12 O2



CM 3

CRN 108-05-4

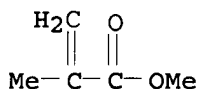
CMF C4 H6 O2



CM 4

CRN 80-62-6

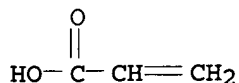
CMF C5 H8 O2



CM 5

CRN 79-10-7

CMF C3 H4 O2



L92 ANSWER 2 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:497165 HCAPLUS

DN 143:28446

TI Tanning formulation and making formulation for preservation of animal and vegetable tissues

IN Wolmeister, Walter Luis

PA Brazil

SO U.S. Pat. Appl. Publ., 8 pp., Cont.-in-part of U.S. Ser. No. 208,516.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005120489	A1	20050609	US 2005-31193	20050107
	US 2004018247	A1	20040129	US 2002-208516	20020729
PRAI	US 2002-208516	A2	20020729		

AB A title formulation for leather tanning uses highly complexed chrome III salts coupled with >1 polymer complexing agents of medium and low mol. weight at 500-10,000. Complexing polymers can contain vinylic acid/ester copolymers, polyamine/polyamide copolymers, and polymers condensed from saturated C linked aromatic groups based on phenol and naphthalene sulfonates

or

other aromatic rings.

IC ICM C14C003-06

INCL 008094270

CC 45-2 (Industrial Organic Chemicals, Leather, Fats, and Waxes)

ST vinylic ester copolymer chrome complex; polyamine polyamide chrome complex; naphthalene sulfonate polymer chrome complex; formulation tanning animal vegetable tissue chrome polymer complex

IT Tanning (curing)

(chrome; tanning formulation containing polymer/chrome complexes for preservation of animal and vegetable tissues)

IT Animal tissue

Leather

Preservation

Vegetable

(tanning formulation containing polymer/chrome complexes for preservation of animal and vegetable tissues)

IT 852700-93-7DP, Acrylic acid-butyl acrylate-fumaric acid-2-hydroxypropyl acrylate-styrene-vinyl acetate copolymer, chrome complexes 852700-94-8DP, Acrylamide-acrylic acid-butyl acrylate-2-hydroxypropyl acrylate-vinyl acetate copolymer, chrome complexes 852700-95-9DP, Acrylamide-acrylic acid-formaldehyde-melamine-urea-vinyl acetate copolymer, chrome complexes 852700-96-0DP, Acrylic acid-dicyandiamide-formaldehyde-n-methylacrylamide-urea-vinyl acetate copolymer, chrome complexes

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(tanning formulation containing polymer/chrome complexes for preservation

of animal and vegetable tissues)

IT 852700-93-7DP, Acrylic acid-butyl acrylate-fumaric acid-2-hydroxypropyl acrylate-styrene-vinyl acetate copolymer, chrome complexes 852700-95-9DP, Acrylamide-acrylic acid-formaldehyde-melamine-urea-vinyl acetate copolymer, chrome complexes 852700-96-0DP, Acrylic acid-dicyandiamide-formaldehyde-n-methylacrylamide-urea-vinyl acetate copolymer, chrome complexes
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(tanning formulation containing polymer/chrome complexes for preservation of animal and vegetable tissues)

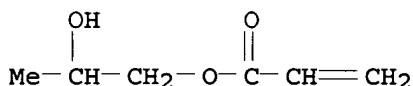
RN 852700-93-7 HCAPLUS

CN 2-Butenedioic acid (2E)-, polymer with butyl 2-propenoate, ethenyl acetate, ethenylbenzene, 2-hydroxypropyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 999-61-1

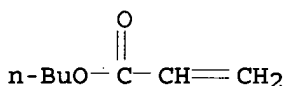
CMF C6 H10 O3



CM 2

CRN 141-32-2

CMF C7 H12 O2

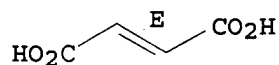


CM 3

CRN 110-17-8

CMF C4 H4 O4

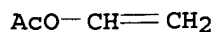
Double bond geometry as shown.



CM 4

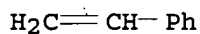
CRN 108-05-4

CMF C4 H6 O2



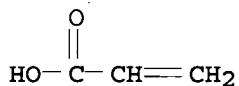
CM 5

CRN 100-42-5
CMF C8 H8



CM 6

CRN 79-10-7
CMF C3 H4 O2

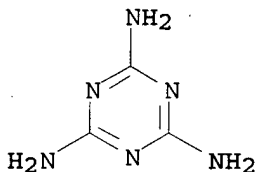


RN 852700-95-9 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate, formaldehyde, 2-propenamide, 1,3,5-triazine-2,4,6-triamine and urea (9CI) (CA INDEX NAME)

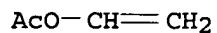
CM 1

CRN 108-78-1
CMF C3 H6 N6



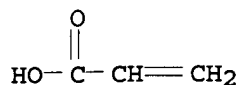
CM 2

CRN 108-05-4
CMF C4 H6 O2



CM 3

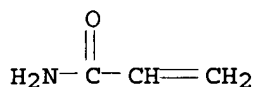
CRN 79-10-7
CMF C3 H4 O2



CM 4

CRN 79-06-1

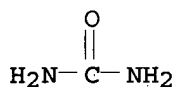
CMF C3 H5 N O



CM 5

CRN 57-13-6

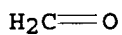
CMF C H4 N2 O



CM 6

CRN 50-00-0

CMF C H2 O



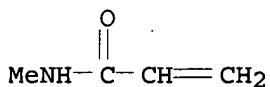
RN 852700-96-0 HCAPLUS

CN 2-Propenoic acid, polymer with cyanoguanidine, ethenyl acetate, formaldehyde, N-methyl-2-propenamide and urea (9CI) (CA INDEX NAME)

CM 1

CRN 1187-59-3

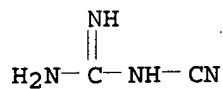
CMF C4 H7 N O



CM 2

CRN 461-58-5

CMF C2 H4 N4



CM 3

CRN 108-05-4

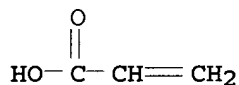
CMF C4 H6 O2



CM 4

CRN 79-10-7

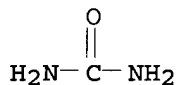
CMF C3 H4 O2



CM 5

CRN 57-13-6

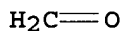
CMF C H4 N2 O



CM 6

CRN 50-00-0

CMF C H2 O



L92 ANSWER 3 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:294129 HCAPLUS

DN 144:89206

TI Development of packaging adhesive for powder train of fireworks

AU Lin, Xianhe; Fang, Jianfang

CS Research Institute of Fujian Textile Chemical Fiber Group Company Limited,
Yong'an, 366016, Peop. Rep. China

SO Zhanjie (2003), 24(6), 50-52
 CODEN: ZHANET; ISSN: 1001-5922
 PB Zhanjie Bianjibu
 DT Journal
 LA Chinese
 AB Copolymer emulsion of vinyl acetate, Me methacrylate and acrylic acid was modified by **acetalization**. The modified emulsion had good frost resistance and film strength. Adhesive used for package papers of powder trains of fireworks and firecrackers were obtained by adding inorg. filling agent to the modified emulsion to improve its fire resistance.
 CC 38-3 (Plastics Fabrication and Uses)
 ST adhesive firework copolymer emulsion
 IT Adhesives
 Polymerization
 (emulsion; packaging adhesive for powder train of fireworks)
 IT Fireworks
 (packaging adhesive for powder train of fireworks)
 IT 25767-83-3DP, Vinyl acetate-methyl methacrylate-acrylic acid copolymer, reaction products with **formaldehyde**
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
 (packaging adhesive for powder train of fireworks)
 IT 25767-83-3DP, Vinyl acetate-methyl methacrylate-acrylic acid copolymer, reaction products with **formaldehyde**
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
 (packaging adhesive for powder train of fireworks)
 RN 25767-83-3 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenyl acetate and 2-propenoic acid (9CI) (CA INDEX NAME)

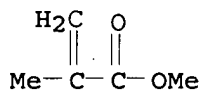
CM 1

CRN 108-05-4
 CMF C4 H6 O2



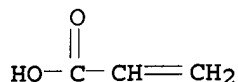
CM 2

CRN 80-62-6
 CMF C5 H8 O2



CM 3

CRN 79-10-7
 CMF C3 H4 O2



L92 ANSWER 4 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:75509 HCAPLUS

DN 142:157367

TI Moisture-resistant polymer compositions with decreased formaldehyde emission and their moldings

IN Mise, Takeshi; Inada, Tadahiro; Shimazaki, Shin; Nishiike, Haruki

PA Showa Highpolymer Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005023129	A	20050127	JP 2003-187353	20030630
PRAI	JP 2003-187353		20030630		

AB The compns., useful for furniture, building boards, etc., contain (A) carboxy-containing polymers manufactured by polymerizing unsatd. monomers having CO₂H

and (B) ≥1 OH-containing organic compds. selected from polyvinyl alc., starch, pulp, and rubbers. Thus, a composition containing water, rock wool, polyvinyl alc., and poly(acrylic acid) was cured at 180° for 3 h to give a board showing formaldehyde emission (JIS A 1460) ≤0.05 mg/L and good distortion resistance in humid conditions.

IC ICM C08L057-10

ICS B27N003-00; C08L001-02; C08L003-00; C08L021-00; C08L029-04

CC 38-3 (Plastics Fabrication and Uses)

ST carboxyl polymer hydroxy compd moisture resistance; polyacrylic acid polyvinyl alc compn molding; formaldehyde emission prevention building board

IT Rubber, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(OH-containing, reaction products with carboxy-containing polymers; moisture-resistant polymer compns. with decreased formaldehyde emission for moldings)

IT Construction materials

(boards; moisture-resistant polymer compns. with decreased formaldehyde emission for moldings)

IT Cellulose pulp

(reaction products with carboxy-containing polymers; moisture-resistant polymer compns. with decreased formaldehyde emission for moldings)

IT Mineral wool

(substrate; moisture-resistant polymer compns. with decreased formaldehyde emission for moldings)

IT 26299-60-5P, Acrylic acid-vinyl alcohol copolymer

247123-49-5P, Acrylic acid-styrene-vinyl alcohol graft copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(comprised of actual and assumed monomers; moisture-resistant polymer compns. with decreased formaldehyde emission for moldings)

IT 9005-25-8, Starch, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(corn, reaction products with carboxy-containing polymers;

moisture-resistant polymer compns. with decreased formaldehyde emission for moldings)

IT 9003-05-8, Polyacrylamide

RL: MOA (Modifier or additive use); USES (Uses)

(moisture-resistant polymer compns. with decreased formaldehyde emission for moldings)

IT 26299-60-5P, Acrylic acid-vinyl alcohol copolymer

247123-49-5P, Acrylic acid-styrene-vinyl alcohol graft copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(comprised of actual and assumed monomers; moisture-resistant polymer compns. with decreased formaldehyde emission for moldings)

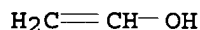
RN 26299-60-5 HCAPLUS

CN 2-Propenoic acid, polymer with ethenol (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5

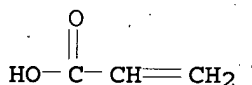
CMF C2 H4 O



CM 2

CRN 79-10-7

CMF C3 H4 O2



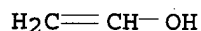
RN 247123-49-5 HCAPLUS

CN 2-Propenoic acid, polymer with ethenol and ethenylbenzene, graft (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5

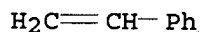
CMF C2 H4 O



CM 2

CRN 100-42-5

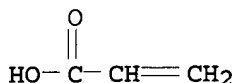
CMF C8 H8



CM 3

CRN 79-10-7

CMF C3 H4 O2



L92 ANSWER 5 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:203869 HCAPLUS

DN 140:236562

TI Heat-sensitive materials and their use in chemically resistant positive working lithographic printing plate precursors

IN Timpe, Hans-Joachim; Mueller, Ursula; Savariar-Hauck, Celin

PA Kodak Polychrome Graphics G.m.b.H., Germany

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004020484	A1	20040311	WO 2003-EP9550	20030828
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10239505	A1	20040408	DE 2002-10239505	20020828
DE 10239505	B4	20050504		
AU 2003255494	A1	20040319	AU 2003-255494	20030828
EP 1543046	A1	20050622	EP 2003-790933	20030828
EP 1543046	B1	20060510		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2006130689	A1	20060622	US 2006-526138	20060130
PRAI DE 2002-10239505	A	20020828		
WO 2003-EP9550	W	20030828		

AB Heat-sensitive element comprises (a) an optionally pre-treated substrate (b) a pos. working heat-sensitive coating comprising (i) at least one novolak resin, (ii) at least one component which reduces the aqueous alkaline developer solubility of novolak, wherein said reduction in solubility is reversed upon

the application of heat, and (iii) at least one acidic polyvinyl acetal, wherein components (i) and (ii) do not have to be present as sep. substances but may be used in the form of an appropriately functionalized novolak. A coating composition contained Alnovol SPN 452, a reaction product of hydrolyzed Mowiol 10/98, propionaldehyde, and 4-formyl benzoic acid, 3-mercapto-1,2,4-triazole, N-benzyl quinolinium bromide, crystal violet, and 2-[2-[2-thiophenyl-3-[2-(1,3-dihydro-1,3,3-trimethyl-

- 2H-indole-2-ylidene)ethylidene]-1 -cyclohexene-1 -yl]ethenyl]-1,3,3-trimethyl-3H-indolium chloride.
- IC ICM C08F008-14
ICS C08L029-14; C08F008-28; C08K005-06; B41C001-10; B41M005-36; B41M005-40
- CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 74
- ST acidic polyvinyl **acetal** novolak heat sensitive coating printing plate
- IT Polyvinyl butyrals
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(Mowital B 30T, reaction products with maleic anhydride; heat-sensitive materials and their use in chemical resistant pos. working lithog. printing plate precursors)
- IT Polyvinyl butyrals
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(Mowital B 70H, reaction products with toluene sulfonylisocyanate; heat-sensitive materials and their use in chemical resistant pos. working lithog. printing plate precursors)
- IT Polyvinyl **acetals**
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(acidic; heat-sensitive materials and their use in chemical resistant pos. working lithog. printing plate precursors)
- IT Cyanine dyes
Heat-sensitive materials
(heat-sensitive materials and their use in chemical resistant pos. working lithog. printing plate precursors)
- IT Phenolic resins, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(novolak; heat-sensitive materials and their use in chemical resistant pos. working lithog. printing plate precursors)
- IT Lithographic plates
(precursors; heat-sensitive materials and their use in chemical resistant pos. working lithog. printing plate precursors)
- IT Dyes
(triarylmethane; heat-sensitive materials and their use in chemical resistant pos. working lithog. printing plate precursors)
- IT 25086-36-6DP, Formaldehyde-m-cresol polymer, reaction products with 6-methylisocytosine and isophorone diisocyanate
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(Alnovol SPN 564; heat-sensitive materials and their use in chemical resistant pos. working lithog. printing plate precursors)
- IT 75-07-0P, **Acetaldehyde**, preparation 123-38-6DP, Propionaldehyde, cyclic **acetals** with polyvinyl alcs.
123-72-8P, Butyraldehyde 619-66-9DP, 4-Formyl benzoic acid, cyclic **acetals** with polyvinyl alcs. 3977-29-5DP, 6-Methylisocytosine, reaction products with isophorone diisocyanate and Alnovol SPN 564
4098-71-9DP, Isophorone diisocyanate, reaction products with 6-methylisocytosine and Alnovol SPN 564 9002-89-5DP, Mowiol 10/98, hydrolyzed, cyclic **acetals** with aldehydes 9002-89-5DP, Mowiol 5/88, hydrolyzed, reaction products with butyraldehyde and 4-benzene sulfonamide butyraldehyde di-Et **acetal** 37768-21-1DP,
Acrylic acid-vinyl acetate-vinyl alcohol copolymer, cyclic **acetals** with **aldehydes** 124874-16-4DP, Toluene sulfonylisocyanate, reaction products with Mowital B70H 668260-95-5DP, reaction products

with Mowital 5/88

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); **PREP (Preparation)**; **USES (Uses)**

(heat-sensitive materials and their use in chemical resistant pos. working lithog. printing plate precursors)

IT 108-31-6D, Maleic anhydride, reaction products with Mowital B30T
27029-76-1, PD 140A 100346-90-5, Alnovol SPN 452

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); **USES (Uses)**

(heat-sensitive materials and their use in chemical resistant pos. working lithog. printing plate precursors)

IT 149-30-4, 2-Mercapto benzothiazole 548-62-9, Crystal violet 3179-31-5,
3-Mercapto-1,2,4-triazole 26323-01-3 134127-48-3 269401-43-6
669012-80-0, ADS 1060

RL: TEM (Technical or engineered material use); **USES (Uses)**

(heat-sensitive materials and their use in chemical resistant pos. working lithog. printing plate precursors)

IT 37768-21-1DP, Acrylic acid-vinyl acetate-vinyl alcohol copolymer,
cyclic acetals with **aldehydes**

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); **PREP (Preparation)**; **USES (Uses)**

(heat-sensitive materials and their use in chemical resistant pos. working lithog. printing plate precursors)

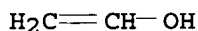
RN 37768-21-1 HCAPLUS

CN 2-Propenoic acid, polymer with ethenol and ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5

CMF C2 H4 O



CM 2

CRN 108-05-4

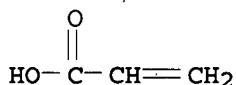
CMF C4 H6 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L92 ANSWER 6 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:134091 HCAPLUS
DN 140:182710
TI Solvent-soluble acrylic pressure-sensitive adhesive compositions and their
sheets with low formaldehyde generation upon heat
IN Iida, Hiroyuki; Takama, Eiichi
PA Toyo Ink Mfg. Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004051812	A	20040219	JP 2002-212090	20020722
	US 2005165146	A1	20050728	US 2005-61661	20050218
	US 7160960	B2	20070109		
PRAI	JP 2002-212090	A	20020722		

AB The compns. comprise main agents of solvent-soluble acrylic polymers, crosslinking agents, and acetylacetone (I). The compns. are film -formed on substrate sheets to give pressure-sensitive adhesive sheets which release $\leq 0.05 \mu\text{m/g-HCHO/2 h}$ to 90°-water . Thus, 100 parts of a 45%-nonvolatile pressure-sensitive adhesive composition containing Bu acrylate-2-ethylhexyl acrylate-acrylic acid-2-hydroxyethyl acrylate copolymer (reaction ratio 76.9:20:3:0.1), 20 phr of a rosin ester, and 1 phr I was mixed with 1.5% Coronate L (concentration 45%), applied on a silicone release agent-coated polyethylene-laminated paper, dried, and bonded with a polyester film to give a pressure-sensitive adhesive sheet which released min. HCHO upon heat.

IC ICM C09J133-00
ICS C09J007-02

CC 38-3 (Plastics Fabrication and Uses)

ST formaldehyde free acetylacetone blend acrylic adhesive; solvent sol acrylic pressure sensitive adhesive; sick house syndrome prevention pressure sensitive adhesive

IT Polyesters, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(Toyobo Ester film, substrate; solvent-soluble acrylic pressure-sensitive adhesive compns. and their sheets with low formaldehyde generation upon heat)

IT Resin acids

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(esters; solvent-soluble acrylic pressure-sensitive adhesive compns. and their sheets with low formaldehyde generation upon heat)

IT Adhesives

(pressure-sensitive, sheets; solvent-soluble acrylic pressure-sensitive adhesive compns. and their sheets with low formaldehyde generation upon heat)

IT Adhesives

(pressure-sensitive; solvent-soluble acrylic pressure-sensitive adhesive compns. and their sheets with low formaldehyde generation upon heat)

IT 137426-12-1P, Acrylic acid-butyl acrylate-Coronate L-2-ethylhexyl acrylate-2-hydroxyethyl acrylate-vinyl acetate copolymer 144700-51-6P, Acrylic acid-butyl acrylate-Coronate L-2-ethylhexyl acrylate-2-hydroxyethyl acrylate copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked; solvent-soluble acrylic pressure-sensitive adhesive compns. and their sheets with low formaldehyde generation upon heat)

IT 9002-88-4, Polyethylene
RL: TEM (Technical or engineered material use); USES (Uses)
(release agent-coated polyethylene-laminated paper; solvent-soluble acrylic pressure-sensitive adhesive compns. and their sheets with low formaldehyde generation upon heat)

IT 123-54-6, Acetylacetone, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent-soluble acrylic pressure-sensitive adhesive compns. and their sheets with low formaldehyde generation upon heat)

IT 137426-12-1P, Acrylic acid-butyl acrylate-Coronate L-2-ethylhexyl acrylate-2-hydroxyethyl acrylate-vinyl acetate copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked; solvent-soluble acrylic pressure-sensitive adhesive compns. and their sheets with low formaldehyde generation upon heat)

RN 137426-12-1 HCAPLUS
CN 2-Propenoic acid, polymer with butyl 2-propenoate, Coronate L, ethenyl acetate, 2-ethylhexyl 2-propenoate and 2-hydroxyethyl 2-propenoate (9CI)
(CA INDEX NAME)

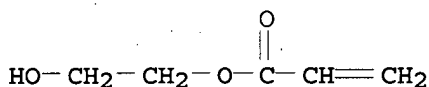
CM 1

CRN 39278-79-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

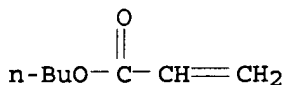
CM 2

CRN 818-61-1
CMF C5 H8 O3



CM 3

CRN 141-32-2
CMF C7 H12 O2



CM 4

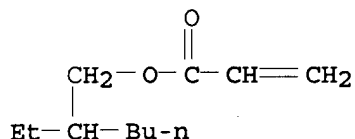
CRN 108-05-4
CMF C4 H6 O2



CM 5

CRN 103-11-7

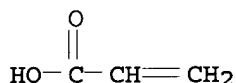
CMF C11 H20 O2



CM 6

CRN 79-10-7

CMF C3 H4 O2



L92 ANSWER 7 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:76049 HCAPLUS

DN 140:111847

TI Polyvinyl acetal and its use

IN Kusudou, Takeshi; Kumaki, Yousuke; Fujiwara, Naoki

PA Kuraray Co., Ltd., Japan

SO Eur. Pat. Appl., 42 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1384731	A1	20040128	EP 2003-15663	20030717
	EP 1384731	B1	20051214		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	US 2004024137	A1	20040205	US 2003-620465	20030717
	US 6992130	B2	20060131		
	JP 2004068013	A	20040304	JP 2003-276411	20030718
	CN 1495205	A	20040512	CN 2003-150278	20030723
PRAI	JP 2002-214094	A	20020723		

AB The polyvinyl acetal having a degree of acetalization 45-80 mol%, is obtained through acetalization of a polyvinyl alc. that contains 1-15 mol% α -olefin units and has a 1,2-glycol bond content 1-3 mol%, d.p. 100-2000 and a degree of hydrolysis 80.0-99.99 mol%. The polyvinyl acetal has good waterproofness and good compatibility with plasticizer. It is favorable for interlayer

films for laminated glass, binders for ceramic forming, binders for ink or paint, and coating liqs. for thermally-developable photog. materials.

IC ICM C08F008-28

CC 35-8 (Chemistry of Synthetic High Polymers)

ST ethylene vinyl acetate copolymer hydrolysis aldehyde reaction; polyvinyl acetal laminated glass binder ceramic ink paint

IT Polyvinyl acetals
Polyvinyl butyrals
RL: IMF (Industrial manufacture); PREP (Preparation)
(acetal butyrals; polyvinyl acetal film with good compatibility with plasticizer triethylene glycol di-2-ethylhexanoate and water absorption)

IT Pigments, nonbiological
(dispersion; polyvinyl acetal film with good compatibility with plasticizer triethylene glycol di-2-ethylhexanoate and water absorption for)

IT Polyvinyl acetals
RL: IMF (Industrial manufacture); PREP (Preparation)
(polyvinyl acetal film with good compatibility with plasticizer triethylene glycol di-2-ethylhexanoate and water absorption)

IT Inks
Paints
Photographic emulsions
(polyvinyl acetal film with good compatibility with plasticizer triethylene glycol di-2-ethylhexanoate and water absorption for)

IT Laminated glass
RL: TEM (Technical or engineered material use); USES (Uses)
(polyvinyl acetal film with good compatibility with plasticizer triethylene glycol di-2-ethylhexanoate and water absorption for)

IT Polyvinyl acetals
RL: IMF (Industrial manufacture); PREP (Preparation)
(propionals; polyvinyl acetal film with good compatibility with plasticizer triethylene glycol di-2-ethylhexanoate and water absorption)

IT 12047-27-7, Barium titanate, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(ceramic green sheet; polyvinyl acetal film with good compatibility with plasticizer triethylene glycol di-2-ethylhexanoate and water absorption for)

IT 24937-78-8DP, EVA, hydrolyzed 26338-34-1DP, Propylene-vinyl acetate copolymer, hydrolyzed 27756-79-2DP, Ethylene-monomethyl maleate-vinyl acetate copolymer, hydrolyzed 31347-46-3DP, Ethylene-itaconic acid-vinyl acetate copolymer, hydrolyzed 647030-87-3DP, Ethylene-vinyl acetate-vinylene carbonate copolymer, hydrolyzed
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acetalizing with aldehyde)

IT 27756-79-2DP, Ethylene-monomethyl maleate-vinyl acetate copolymer, hydrolyzed 31347-46-3DP, Ethylene-itaconic acid-vinyl acetate copolymer, hydrolyzed
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acetalizing with aldehyde)

RN 27756-79-2 HCAPLUS

CN 2-Butenedioic acid (2Z)-, monomethyl ester, polymer with ethene and

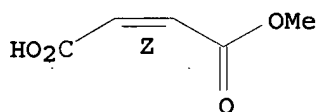
ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 3052-50-4

CMF C5 H6 O4

Double bond geometry as shown.



CM 2

CRN 108-05-4

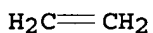
CMF C4 H6 O2



CM 3

CRN 74-85-1

CMF C2 H4



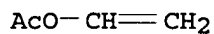
RN 31347-46-3 HCAPLUS

CN Butanedioic acid, methylene-, polymer with ethene and ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 108-05-4

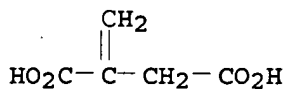
CMF C4 H6 O2



CM 2

CRN 97-65-4

CMF C5 H6 O4



CM 3

CRN 74-85-1

CMF C2 H4

 $H_2C=CH_2$

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L92 ANSWER 8 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:41530 HCAPLUS
DN 140:111843
TI Manufacture of crosslinked poly(vinyl acetals) for films
IN Papenfuhs, Bernd; Steuer, Martin; Jonas, Simon
PA Kuraray Specialities Europe GmbH, Germany
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

application

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004005358	A1	20040115	WO 2003-EP6973	20030701
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10319198	A1	20040115	DE 2003-10319198	20030429
AU 2003249914	A1	20040123	AU 2003-249914	20030701
BR 2003012332	A	20050426	BR 2003-12332	20030701
EP 1527107	A1	20050504	EP 2003-762565	20030701
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005535741	T	20051124	JP 2004-518645	20030701
US 2005239960	A1	20051027	US 2004-519133	20041222
PRAI DE 2002-10230251	A	20020704		
DE 2003-10319198	A	20030429		
WO 2003-EP6973	W	20030701		

AB The crosslinked poly(vinyl acetals), useful as films for laminated automotive windshields, were manufactured by reacting polyvinyl acetals comprising structural units (CHOHCHR1) (I; R1 = H, Me) and, optionally, structural units [CH(O2CR2)CHR1] (R2 = H, C1-6 alkyl; R1 as above), (CR5R6CR3R4) (R3-R6 = residues with mol. weight 1-500 g/mol) and [CHR7CR8(CO2H)] [II; R7, R8 = H, CO2H, (carboxy-substituted) C1-10 alkyl], with compds. R9COR10 [R9, R10 = H, CO2H, C1-10 alkyl, (un)substituted C6-12 aryl], where OH groups of the structures I are at least partially esterified with CO2H groups of the structures II. For example, a 70:30 mixture of saponified itaconic acid-vinyl acetate copolymer (2.1% itaconic acid) and saponified maleic acid-vinyl acetate copolymer (3.9% maleic acid) crosslinked with butyraldehyde gave a film with better

resistance to acetone than a film of butyraldehyde-crosslinked saponified polyvinyl acetate.

IC ICM C08F008-28

CC 35-8 (Chemistry of Synthetic High Polymers)

ST polyvinyl acetal crosslinking butyraldehyde extruded film manuf; itaconic acid vinyl acetate saponid copolymer crosslinking butyraldehyde

IT Safety glass
RL: TEM (Technical or engineered material use); USES (Uses)
(automotive windshields; manufacture of crosslinked poly(vinyl acetals) for films for)

IT Polyvinyl acetals
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked; manufacture of crosslinked poly(vinyl acetals) for films)

IT Electrochromic devices
(manufacture of crosslinked poly(vinyl acetals) as ionically conducting inner layers of)

IT Coating materials
Plastic films
(manufacture of crosslinked poly(vinyl acetals) for)

IT Windshields
(manufacture of crosslinked poly(vinyl acetals) for films)

IT 123-72-8DP, Butyraldehyde, reaction products with hydrolyzed vinyl acetate copolymers 9003-20-7DP, Poly(vinyl acetate), hydrolyzed, reaction products with butyraldehyde 9011-07-8DP, Maleic anhydride-Vinyl acetate copolymer, hydrolyzed, reaction products with butyraldehyde 43158-52-7DP, Itaconic acid-Vinyl acetate copolymer, hydrolyzed, reaction products with butyraldehyde = 5 ⁵⁰

RL: IMF (Industrial manufacture); PREP (Preparation)
(crosslinked; manufacture of crosslinked poly(vinyl acetals) for films)

IT 43158-52-7DP, Itaconic acid-Vinyl acetate copolymer, hydrolyzed, reaction products with butyraldehyde

RL: IMF (Industrial manufacture); PREP (Preparation)
(crosslinked; manufacture of crosslinked poly(vinyl acetals) for films)

RN 43158-52-7 HCAPLUS

CN Butanedioic acid, methylene-, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 108-05-4

CMF C4 H6 O2

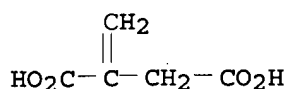
AcO-CH=CH₂

1 formula

CM 2

CRN 97-65-4

CMF C5 H6 O4



4 formula

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L92 ANSWER 9 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:945564 HCAPLUS

DN 140:5963

TI Formaldehyde-free adhesive compositions for wood materials with good water and heat resistance and long pot life

IN Iwasaki, Masaharu; Morinaga, Hiroyasu; Fujii, Ichiro; Ueda, Shigeharu

PA Ohshika Shinko K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003342545	A	20031203	JP 2002-158183	20020530
	CN 1461785	A	20031217	CN 2003-123885	20030530
PRAI	JP 2002-158183	A	20020530		

AB The compns. comprise (A) 100 parts vinyl acetate polymer emulsion adhesives and (B) 0.05-60 parts N,N-diglycidylamines G2NDNG2 [G = glycidyl; D = C1-12-alkylene, phenylene (maybe substituted by halo, alkyl), alkylenediphenylene], wherein the emulsions are manufactured by emulsion-polymerizing 100 parts vinyl acetate and 0.1-10 parts

carboxy-containing

monomers in the presence of protective colloids of carboxy-modified polyvinyl alc. Thus, vinyl acetate and acrylic acid were polymerized in the presence of colloids of maleic acid-modified polyvinyl alc., mixed with N,N,N',N'-tetraglycidyl-m-xylenediamine (Tetrad X), applied on wood boards, and hot-pressed to give a test piece showing adhesion strength 18.7 kg/cm² and that after immersing in H₂O at 20° for 3 days 11.4 kg/cm².

IC ICM C09J131-04

ICS C08G059-32; C08G059-42; C09J109-10; C09J163-00

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 43

ST adhesive compn wood tetraglycidyl-diamine heat resistance; waterproofing adhesive acrylic vinyl acetate polymer emulsion; protective colloid carboxy polyvinyl alc adhesive

IT Polyamines

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(acrylic-epoxy; formaldehyde-free adhesive compns. for wood with good water and heat resistance and long pot life)

IT Epoxy resins, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(acrylic-polyamine-; formaldehyde-free adhesive compns. for wood with good water and heat resistance and long pot life)

IT Wood boards

(formaldehyde-free adhesive compns. for wood with good water and heat resistance and long pot life)

IT Adhesives

(heat- and water-resistant; formaldehyde-free adhesive compns. for wood with good water and heat resistance and long pot life)

IT Colloids

(protective, for emulsion polymerization; formaldehyde-free adhesive compns. for wood with good water and heat resistance and long pot life)

IT 24980-58-3P, Acrylic acid-vinyl acetate copolymer

RL: IMF (Industrial manufacture); RCT (Reactant); PREP

(Preparation); RACT (Reactant or reagent)

(emulsion-polymerized; formaldehyde-free adhesive compns. for wood with good water and heat resistance and long pot life)

IT 627809-63-6P 627809-64-7P 627809-65-8P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(formaldehyde-free adhesive compns. for wood with good water and heat resistance and long pot life)

IT 9011-07-8D, Maleic anhydride-vinyl acetate copolymer, saponified

RL: NUU (Other use, unclassified); USES (Uses)

(protective colloid for emulsion polymerization; formaldehyde-free adhesive compns. for wood with good water and heat resistance and long pot life)

IT 24980-58-3P, Acrylic acid-vinyl acetate copolymer

RL: IMF (Industrial manufacture); RCT (Reactant); PREP

(Preparation); RACT (Reactant or reagent)

(emulsion-polymerized; formaldehyde-free adhesive compns. for wood with good water and heat resistance and long pot life)

RN 24980-58-3 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 108-05-4

CMF C4 H6 O2

AcO-CH=CH₂

CM 2

CRN 79-10-7

CMF C3 H4 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{HO}-\text{C}-\text{CH}=\text{CH}_2 \end{array}$$

IT 627809-63-6P 627809-64-7P 627809-65-8P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(formaldehyde-free adhesive compns. for wood with good water and heat resistance and long pot life)

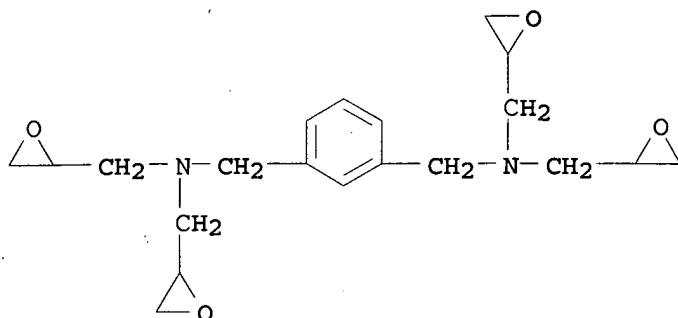
RN 627809-63-6 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate and N,N,N',N'-tetrakis(oxiranylmethyl)-1,3-benzenedimethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 63738-22-7

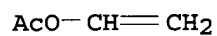
CMF C20 H28 N2 O4



CM 2

CRN 108-05-4

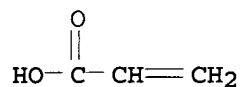
CMF C4 H6 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



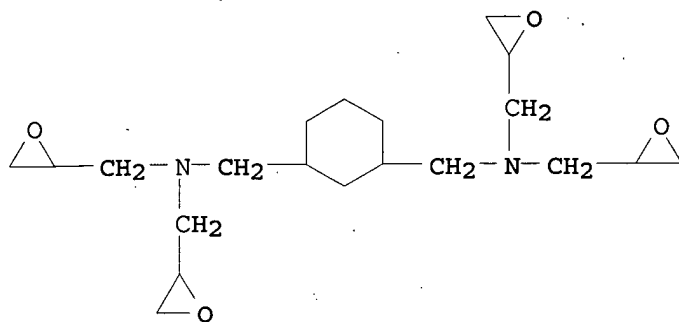
RN 627809-64-7 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate and N,N,N',N'-tetrakis(oxiranylmethyl)-1,3-cyclohexanedimethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 65992-66-7

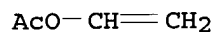
CMF C20 H34 N2 O4



CM 2

CRN 108-05-4

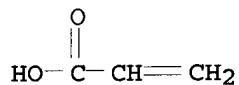
CMF C4 H6 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



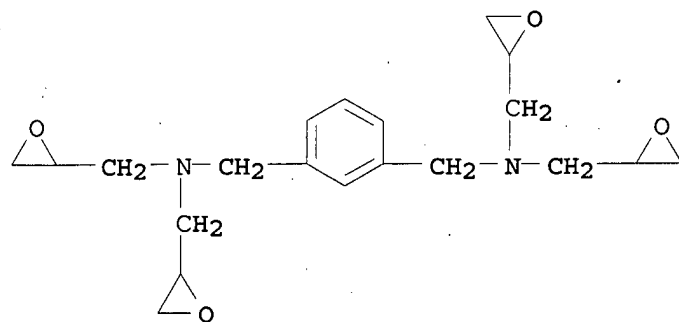
RN 627809-65-8 HCAPLUS

CN 2-Propenoic acid, polymer with 1,3-butadiene, ethenyl acetate, ethenylbenzene and N,N,N',N'-tetrakis(oxiranylmethyl)-1,3-benzenedimethanamine (9CI). (CA INDEX NAME)

CM 1

CRN 63738-22-7

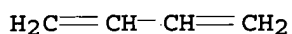
CMF C20 H28 N2 O4



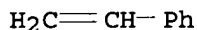
CM 2

CRN 108-05-4
CMF C4 H6 O2

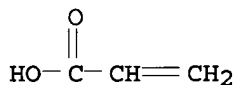
CM 3

CRN 106-99-0
CMF C4 H6

CM 4

CRN 100-42-5
CMF C8 H8

CM 5

CRN 79-10-7
CMF C3 H4 O2

L92 ANSWER 10 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:846487 HCAPLUS

DN 134:131920

TI Interpolymer complexes of acrylic acid and vinylbutyl ether copolymers
with non-ionic and cationic polymers

AU Kudaibergenov, Sarkyt E.; Bimendina, Larisa A.; Zhumadilova, Gulmira T.

CS Institute of Polymer Materials and Technology, Almaty, 480013, Kazakhstan

SO Polymers for Advanced Technologies (2000), 11(8-12), 506-511

CODEN: PADTE5; ISSN: 1042-7147

PB John Wiley & Sons Ltd.

DT Journal

LA English

AB Copolymers of acrylic acid and vinylbutyl ether (AA/VBE) have been
involved in complexation reactions with non-ionic poly-N-vinylpyrrolidone
(PVP), polyethylene glycol (PEG) and cationic poly-N-methyl-4-
vinylethynylpiperidinol-4 (PVEP) and polyvinyl ether of monoethanolamine
(PVMEA). Interpolymer complexes (IPC) are stabilized due to the

formation of either cooperative system of hydrogen or ionic bonds depending on the nature of interacting macromol. components. The stoichiometry of IPC was determined by electrochem. methods. The stability of IPC depends on thermodyn. quality of the solvents, temperature, and degree of ionization. The permeability of IPC membranes with respect to urea was studied.

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 36, 38

ST acrylic acid vinylbutyl ether copolymer complex membrane prepn;
polyoxyethylene acrylic acid copolymer complex viscosity;
polyvinylpyrrolidone vinylbutyl ether copolymer complex conductometry;
polymethyl vinyl ethynyl piperidinol complex acrylic acid copolymer;
polymonoethanolamine vinyl ether complex acrylic acid copolymer

IT Polyelectrolytes

(cationic, poly-N-methyl-4-vinylethynyl piperidinol-4,
poly(monoethanolamine vinyl ether); preparation and property of
]interpolymer complexes of acrylic acid-vinylbutyl ether copolymers
with non-ionic and cationic polymers)

IT Chemistry

(chemical complexes; preparation and property of]interpolymer complexes of
acrylic acid-vinylbutyl ether copolymers with non-ionic and cationic
polymers)

IT Conductometry

Potentiometry

(in preparation and property of]interpolymer complexes of acrylic
acid-vinylbutyl ether copolymers with non-ionic and cationic polymers)

IT Membranes, nonbiological

Plastic films

Viscosity

(preparation and property of]interpolymer complexes of acrylic
acid-vinylbutyl ether copolymers with non-ionic and cationic polymers)

IT 26568-78-5P 108090-50-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(cationic polymer; preparation and property of]interpolymer complexes of
acrylic acid-vinylbutyl ether copolymers with non-ionic and cationic
polymers)

IT 191489-48-2P 260395-88-8P 278188-37-7P 322475-63-8P

322475-67-2P 322475-70-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP
(Preparation)

(preparation and property of]interpolymer complexes of acrylic
acid-vinylbutyl ether copolymers with non-ionic and cationic polymers)

IT 137049-83-3P, Acrylic acid-vinylbutyl ether copolymer

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation and property of]interpolymer complexes of acrylic
acid-vinylbutyl ether copolymers with non-ionic and cationic polymers)

IT 322475-67-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP
(Preparation)

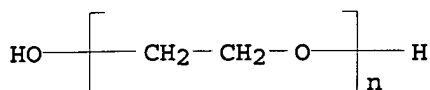
(preparation and property of]interpolymer complexes of acrylic
acid-vinylbutyl ether copolymers with non-ionic and cationic polymers)

RN 322475-67-2 HCAPLUS

CN 2-Propenoic acid, polymer with 1-(ethenyloxy)butane, compd. with
 α -hydro- ω -hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX
NAME)

CM 1

CRN 25322-68-3
 CMF (C2 H4 O)_n H2 O
 CCI PMS

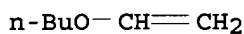


CM 2

CRN 137049-83-3
 CMF (C6 H12 O . C3 H4 O2)_x
 CCI PMS

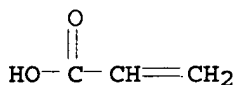
CM 3

CRN 111-34-2
 CMF C6 H12 O



CM 4

CRN 79-10-7
 CMF C3 H4 O2



RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L92 ANSWER 11 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:733068 HCAPLUS

DN 133:282820

TI Water-resistant vinyl acetate polymer compositions without using formaldehyde

IN Chikuyama, Fumitoshi

PA Showa Highpolymer Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2000290320	A	20001017	JP 1999-104107	19990412
PRAI	JP 1999-104107		19990412		

AB The comps., useful for adhesives for plywoods, mainly comprise copolymer emulsions manufactured by emulsion polymerization of 80.0-99.9 weight% vinyl acetate with

0.1-20.0 weight% acrylic acid in the presence of poly(vinyl alc.) having 0.1-20.0 mol% diacetone group on their side chains. Thus, 10g acrylic acid was polymerized with 440 g vinyl acetate in the presence of saponified diacetone acrylamide-vinyl ester copolymer (diacetone acrylamide 5.0 mol%) and RS 117 (ethylene-modified Poval) to give an emulsion. A cast film manufactured from the emulsion showed weight retention 93.1% after being soaked in water at 95° for 3 h.

IC ICM C08F218-08
ICS C08F002-22; C08F002-44; C08F008-12; C08F216-06; C08L031-04;
C08F218-08; C08F220-06; C08F220-26; C08F220-58
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 43
ST vinyl acetate acrylic acid copolymer emulsion; adhesive plywood water resistant vinyl acetate polymer; diacetone polyvinyl alc vinyl acetate polymn; formaldehyde free vinyl acetate polymer emulsion
IT Adhesives
(emulsion; formaldehyde-free vinyl acetate polymer compns. for adhesives with good water resistance for plywoods)
IT Wood
(plywood; formaldehyde-free vinyl acetate polymer compns. for adhesives with good water resistance for plywoods)
IT Adhesives
(water-resistant; formaldehyde-free vinyl acetate polymer compns. for adhesives with good water resistance for plywoods)
IT 24980-58-3P, Acrylic acid-vinyl acetate copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(formaldehyde-free vinyl acetate polymer compns. with good water resistance)
IT 557-75-5D, Vinyl alcohol, esters, polymers with diacetone-containing monomers, saponified 2873-97-4D, Diacetone acrylamide, polymers with vinyl esters, saponified
RL: MOA (Modifier or additive use); USES (Uses)
(formaldehyde-free vinyl acetate polymer compns. with good water resistance)
IT 24980-58-3P, Acrylic acid-vinyl acetate copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(formaldehyde-free vinyl acetate polymer compns. with good water resistance)
RN 24980-58-3 HCAPLUS
CN 2-Propenoic acid, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 108-05-4

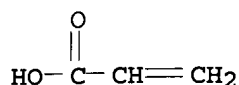
CMF C4 H6 O2

AcO-CH=CH₂

CM 2

CRN 79-10-7

CMF C3 H4 O2



L92 ANSWER 12 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:560939 HCAPLUS

DN 133:164944

TI Formaldehyde-free aqueous vinyl urethane adhesives with good initial adhesion

IN Kumano, Akifumi; Mitsutake, Tatsuo

PA Sumitomo Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000226562	A	20000815	JP 1999-27200	19990204
PRAI	JP 1999-27200		19990204		

AB The adhesives, useful for woods, plastics, packages, etc., comprise (A) aqueous emulsions containing copolymers comprising ethylene 2-40, vinyl acetate 54-97.5, and α,β -ethylenically unsatd. carboxylic acids 0.6-6%, (B) poly(vinyl alc.), and (C) compds. containing isocyanate groups or their polymers. Two wood pieces were press-bonded by an adhesive consisting of an emulsion comprising Gohsenol NM 11 [complete saponified poly(vinyl acetate)], Poval 205 [partially saponified poly(vinyl acetate)], and 16/80/4 ethylene-vinyl acetate-acrylic acid copolymer 34.6, Poval 217 [partially saponified poly(vinyl acetate)] 40, NS 100 (CaCO₃) 20, H₂O 5.4, and Sumidur 44V20 15 parts for 10 min to give a test piece showing peeling strength 45 kg/in.

IC ICM C09J131-04

ICS C09J129-04; C09J175-04

CC 38-3 (Plastics Fabrication and Uses)

ST vinyl urethane aq adhesive initial adhesion; polyvinyl alc polyisocyanate aq emulsion adhesive; ethylene vinyl acetate acrylate copolymer adhesive

IT Adhesives

(emulsion, water-thinned; formaldehyde-free aqueous vinyl urethane adhesives with initial adhesion)

IT 26713-18-8P, Acrylic acid-ethylene-vinyl acetate copolymer

96478-05-6P, Sumidur 44V20-vinyl alcohol copolymer 287920-20-1P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP** (Preparation); USES (Uses)

(formaldehyde-free aqueous vinyl urethane adhesives with initial adhesion)

IT 26713-18-8P, Acrylic acid-ethylene-vinyl acetate copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP** (Preparation); USES (Uses)

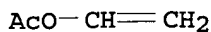
(formaldehyde-free aqueous vinyl urethane adhesives with initial adhesion)

RN 26713-18-8 HCAPLUS

CN 2-Propenoic acid, polymer with ethene and ethenyl acetate (9CI) (CA INDEX NAME)

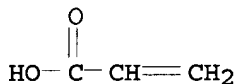
CM 1

CRN 108-05-4
CMF C4 H6 O2



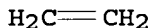
CM 2

CRN 79-10-7
CMF C3 H4 O2



CM 3

CRN 74-85-1
CMF C2 H4



L92 ANSWER 13 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:583367 HCAPLUS

DN 131:215400

TI Removable pressure-sensitive adhesive sheets suitable for pulp recycling

IN Kunihiro, Akira; Otsuka, Atsushi; Suzuki, Kenji

PA Oji Paper Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11246828	A	19990914	JP 1998-47171	19980227
PRAI	JP 1998-47171		19980227		

AB The sheets, useful for labels, etc., are laminates of surface substrates which can be broken in H₂O and/or aqueous alkali solns., removable pressure-sensitive adhesive layers which can be broken in H₂O, and release sheets, where the adhesives contain copolymers from alkoxyalkyl (meth)acrylates 7-30, (meth)acrylic acid caprolactone addition products 1-15, C4-18 alkyl (meth)acrylates 40-70, ethylenically unsatd. carboxylic acid-containing monomers 7-20, and copolymerizable monomers 1-15% and 0.1-10% (based on the copolymers) crosslinking agents. Thus, a pressure-sensitive adhesive containing 100 parts 75:20:220:45:20:20 methoxyethyl acrylate-Aronix M 5300 (acrylic acid caprolactone addition product)-2-ethylhexyl acrylate-acrylic acid-vinyl acetate-Me (meth)acrylate copolymer and 3 parts Aluminum Chelate D [aluminum mono(acetylacetonate) bis(Et acetoacetate)] was applied on polyethylene-laminated release paper and bonded with paper to give an adhesive label, which showed adhesive

- strength 600 g/25 mm when pressed against paper, could be easily removed from an ABS sheet, and was completely dissolved in aqueous NaOH.
- IC ICM C09J007-02
ICS C09J133-14
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 43, 60
- ST acrylate removable pressure sensitive adhesive sheet; polycaprolactone methacrylate pressure sensitive adhesive; aluminum chelate crosslinking methacrylate adhesive label; paper recycling acrylic pressure sensitive adhesive
- IT Polysiloxanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(LTC 300B, release agent; removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT Polyesters, uses
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(acrylic; removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT Crosslinking agents
(aluminum chelates; removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT Paper
Paper
(laminates; removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT Laminated materials
Laminated materials
(paper; removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT Labels
(pressure-sensitive adhesive labels; removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT Adhesive films
(pressure-sensitive; removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT Polysiloxanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(release agent; removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT Parting materials
Parting materials
(release paper; removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT Paper
Paper
(release; removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT Cellulose pulp
(removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT Acrylic polymers, uses
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT Recycling
(wastepaper; removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)

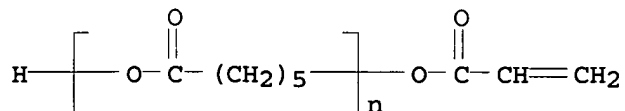
- IT 15306-17-9, ALCH-TR 19443-16-4, Aluminum Chelate D
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agent; removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT 9002-88-4, Polyethylene
RL: TEM (Technical or engineered material use); USES (Uses)
(release paper laminated with; removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT 240810-82-6P, Acrylic acid-Aronix M 5300-2-ethylhexyl acrylate-methoxyethyl acrylate-methyl acrylate-methyl methacrylate-vinyl acetate copolymer 240810-83-7P, Acrylic acid-Aronix M 5300-2-ethylhexyl acrylate-methoxyethyl acrylate-methyl acrylate-methyl methacrylate-vinyl acetate copolymer triethanolamine salt
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT 74-85-1D, Ethylene, polymers with vinyl acetate and acrylic monomers 108-05-4D, Vinyl acetate, polymers with ethylene and acrylic monomers 207748-50-3, Sumikaflex S 3110
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- IT 240810-82-6P, Acrylic acid-Aronix M 5300-2-ethylhexyl acrylate-methoxyethyl acrylate-methyl acrylate-methyl methacrylate-vinyl acetate copolymer
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(removable pressure-sensitive adhesive sheets or labels suitable for pulp recycling)
- RN 240810-82-6 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenyl acetate, 2-ethylhexyl 2-propenoate, α -hydro- ω -[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)], 2-methoxyethyl 2-propenoate, methyl 2-propenoate and 2-propenoic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 97387-29-6

CMF (C6 H10 O2)n C3 H4 O2

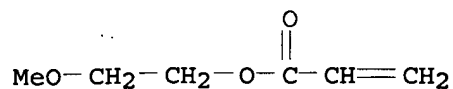
CCI PMS



CM 2

CRN 3121-61-7

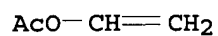
CMF C6 H10 O3



CM 3

CRN 108-05-4

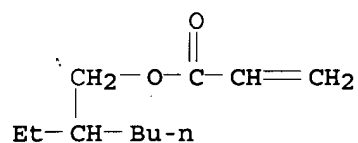
CMF C4 H6 O2



CM 4

CRN 103-11-7

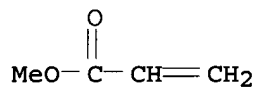
CMF C11 H20 O2



CM 5

CRN 96-33-3

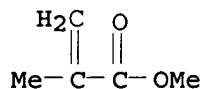
CMF C4 H6 O2



CM 6

CRN 80-62-6

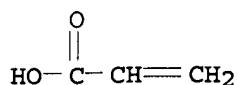
CMF C5 H8 O2



CM 7

CRN 79-10-7

CMF C3 H4 O2



L92 ANSWER 14 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:498642 HCAPLUS

DN 131:177357

TI Photosensitive resin composition and patterning of resist

IN Juni, Miyako; Sasaki, Masaki; Saito, Teruo

PA Taiyo Ink Seizo K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11218913	A	19990810	JP 1998-33565	19980202
	US 6338936	B1	20020115	US 1999-239771	19990129
	US 2002102501	A1	20020801	US 2002-43156	20020114
	US 6576409	B2	20030610		
PRAI	JP 1998-33565	A	19980202		
	JP 1998-210281	A	19980710		
	US 1999-239771	A3	19990129		

AB The photosensitive resin composition comprises (A) a polymer with a weight average

mol. weight 1,000-50,000 having an acid-decomposable ester group, (B) a compound which contains an ethylenic unsatd. bond and a group forming a carboxylic acid upon contacting an acid, (C) a photoacid, and (D) a radical polymerization photo-initiator. The process comprises irradiating with light which activates (D) but (C) to form a tack-free film, and irradiating with light which activates (C), followed by developing with an alkaline developer.

IC ICM G03F007-028

ICS G03F007-027; G03F007-033; G03F007-039; G03F007-38; H05K003-06

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

ST photosensitive resin compn resist patterning

IT Resists

(etching; photosensitive resin composition and patterning of resist)

IT Resists

(photosensitive resin composition and patterning of resist)

IT 106220-70-6, UVI-6950 125054-47-9, UVI-6970

RL: MOA (Modifier or additive use); USES (Uses)

(photoacid; photosensitive resin composition and patterning of resist)

IT 31305-83-6P, Acrylic acid-isobutylvinyl ether copolymer

238426-90-9P, Acetyethyl methacrylate-acrylic acid-isobutylvinyl

ether-methyl methacrylate copolymer 238426-91-0P, Acetyethyl

methacrylate-acrylic acid-2-hydroxyethyl methacrylate-isobutylvinyl

ether-methyl methacrylate copolymer 238426-92-1P, Mono(2-

acryloyloxyethyl)hexahydrophthalate-isobutylvinyl ether copolymer

238734-54-8P, Acetyethyl methacrylate-isobutylvinyl ether-SMA1440

copolymer

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive resin composition and patterning of resist)

IT 24650-42-8, Irgacure 651 75980-60-8, Lucirin TPO 162881-26-7, Irgacure 819

RL: CAT (Catalyst use); USES (Uses)

(radical polymerization initiator; photosensitive resin composition and patterning of resist)

IT 238426-90-9P, Acetylenyl methacrylate-acrylic acid-isobutylvinyl ether-methyl methacrylate copolymer 238426-91-0P, Acetylenyl methacrylate-acrylic acid-2-hydroxyethyl methacrylate-isobutylvinyl ether-methyl methacrylate copolymer

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive resin composition and patterning of resist)

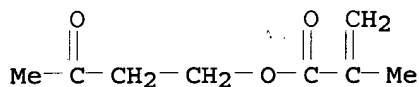
RN 238426-90-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1-(ethenyloxy)-2-methylpropane, 3-oxobutyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 86351-21-5

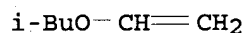
CMF C8 H12 O3



CM 2

CRN 109-53-5

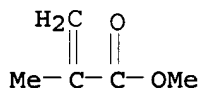
CMF C6 H12 O



CM 3

CRN 80-62-6

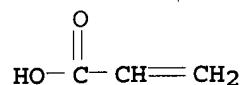
CMF C5 H8 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



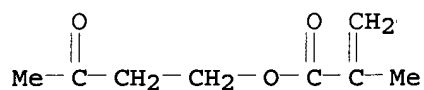
RN 238426-91-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with
1-(ethenyloxy)-2-methylpropane, methyl 2-methyl-2-propenoate, 3-oxobutyl
2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 86351-21-5

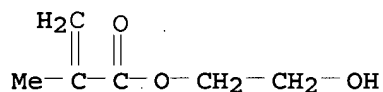
CMF C8 H12 O3



CM 2

CRN 868-77-9

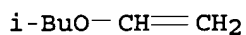
CMF C6 H10 O3



CM 3

CRN 109-53-5

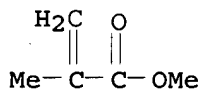
CMF C6 H12 O



CM 4

CRN 80-62-6

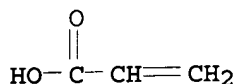
CMF C5 H8 O2



CM 5

CRN 79-10-7

CMF C3 H4 O2



L92 ANSWER 15 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:267428 HCAPLUS

DN 130:326413

TI Preparation of modified polyvinyl acetals and their solutions for transparent coatings

IN Miyake, Yoshitaka; Kamiyama, Takashi

PA Sekisui Chemical Co. Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp. *

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11116620	A	19990427	JP 1997-281966	19971015
	JP 3739192	B2	20060125		
PRAI	JP 1997-281966		19971015		

AB Modified polyvinyl acetals having acetalization degree

≤12 mol% are prepared by reacting aqueous solns. of modified poly(vinyl alcs.) with aromatic aldehydes in the presence of 0.005-0.03% concentration of acid

catalysts, where the modified poly(vinyl alcs.) contain hydrophilic groups of CO₂M, SO₃M, OSO₃M, P(OM)₂, and/or P(R)(O)OM (M = H, Li, Na, K; R = H, C1-20 alkyl), tertiary amines, and/or quaternary ammonium salts. The title solns. are manufactured by dissolving the modified polyvinyl acetals in 80/20-20/80 mixts. of H₂O/alcs. Thus, itaconic acid-modified poly(vinyl alc.) (d.p. 2000, saponification degree 88 mol%) in

H2O

was reacted with benzaldehyde in the presence of 0.01% HCl to give a polymer precipitate, which was treated with aqueous NaOH, dried, and then dissolved

in a 3:2 mixture of H₂O/iso-PrOH. The obtained solution of the polymer (acetalization degree 8 mol%) was applied on a film and dried to give a coating with high transparency.

IC ICM C08F008-28

ICS C08F016-38; C08L029-14

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 35

ST modified polyvinyl acetal prepn soln coating; hydrophilic group modified polyvinyl alc acetalization; tertiary amine modified polyvinyl alc acetalization; quaternary ammonium salt polyvinyl alc acetalization; acid catalyst acetalization modified polyvinyl alc; hydrochloric acid catalyst acetalization polyvinyl alc; arom aldehyde modified polyvinyl alc acetalization; benzaldehyde modified polyvinyl alc acetalization; itaconic acid modified polyvinyl alc acetalization; aq alc soln modified polyvinyl acetal; isopropyl alc water soln polyvinyl acetal; transparency coating modified polyvinyl acetal soln

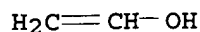
IT Acids, uses

RL: CAT (Catalyst use); USES (Uses)

- (acetalization catalysts; preparation of modified polyvinyl acetals and their aqueous alc. solns. for transparent coatings)
- IT Acetalization catalysts
(acids; preparation of modified polyvinyl acetals and their aqueous alc. solns. for transparent coatings)
- IT Aldehydes, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aromatic, cyclic acetals with modified poly(vinyl alc.); preparation of modified polyvinyl acetals and their aqueous alc. solns. for transparent coatings)
- IT Polyvinyl acetals
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(benzals; preparation of modified polyvinyl acetals and their aqueous alc. solns. for transparent coatings)
- IT Polyvinyl acetals
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(phenylacetals; preparation of modified polyvinyl acetals and their aqueous alc. solns. for transparent coatings)
- IT Alcohols, uses
RL: NUU (Other use, unclassified); USES (Uses)
(preparation of modified polyvinyl acetals and their aqueous alc. solns. for transparent coatings)
- IT Coating materials
(transparent; preparation of modified polyvinyl acetals and their aqueous alc. solns. for transparent coatings)
- IT 7647-01-0, Hydrochloric acid, uses
RL: CAT (Catalyst use); USES (Uses)
(acetalization catalyst; preparation of modified polyvinyl acetals and their aqueous alc. solns. for transparent coatings)
- IT 100-52-7DP, Benzaldehyde, cyclic acetals with modified poly(vinyl alc.), uses 122-78-1DP, Phenylacetaldehyde, cyclic acetals with modified poly(vinyl alc.) 34229-80-6DP, Maleic acid-vinyl alcohol copolymer, reaction products with aromatic aldehydes 68508-47-4DP, Itaconic acid-vinyl alcohol copolymer, reaction products with aromatic aldehydes
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of modified polyvinyl acetals and their aqueous alc. solns. for transparent coatings)
- IT 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 67-63-0, Isopropyl alcohol, uses 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(preparation of modified polyvinyl acetals and their aqueous alc. solns. for transparent coatings)
- IT 34229-80-6DP, Maleic acid-vinyl alcohol copolymer, reaction products with aromatic aldehydes 68508-47-4DP, Itaconic acid-vinyl alcohol copolymer, reaction products with aromatic aldehydes
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of modified polyvinyl acetals and their aqueous alc. solns. for transparent coatings)
- RN 34229-80-6 HCAPLUS
- CN 2-Butenedioic acid (2Z)-, polymer with ethenol (9CI) (CA INDEX NAME)

CM 1

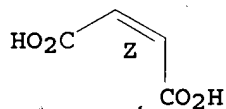
CRN 557-75-5
CMF C2 H4 O



CM 2

CRN 110-16-7
CMF C4 H4 O4

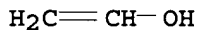
Double bond geometry as shown.



RN 68508-47-4 HCAPLUS
CN Butanedioic acid, methylene-, polymer with ethenol (9CI) (CA INDEX NAME)

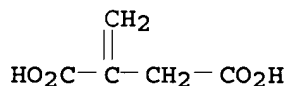
CM 1

CRN 557-75-5
CMF C2 H4 O



CM 2

CRN 97-65-4
CMF C5 H6 O4



L92 ANSWER 16 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:108821 HCAPLUS
DN 130:268468
TI Nonformaldehyde wrinkle-free garment finishing of cotton slacks
AU Wei, Weishu; Yang, Charles Q.; Jiang, Yanqiu
CS University of Georgia, Athens, GA, USA
SO Textile Chemist and Colorist (1999), 31(1), 34-38
CODEN: TCCOB6; ISSN: 0040-490X
PB American Association of Textile Chemists and Colorists
DT Journal
LA English
AB The increasing demand for easy care cotton apparel in the marketplace has made it urgent to develop competitively priced formaldehyde-free durable press finishes to replace the traditional N-methylol reagents. A

cost-effective nonformaldehyde durable press finishing system was developed based on citric acid and a terpolymer of maleic acid. This system was applied to garment finishing on both laboratory and industrial production

scales and compared with the traditional DMDHEU systems as well as one com. nonformaldehyde system. The durable press rating, crease retention rating, wrinkle recovery angle, mech. strength, and abrasion resistance of the garments finished with the new system are comparable to those treated with the conventional DMDHEU systems. The garments finished with the new system maintained satisfactory fabric smoothness and crease retention after 30 home laundering washing/drying cycles.

CC 40-9 (Textiles and Fibers)

ST creaseproofing cotton clothing formaldehyde free; durable press finishing cotton nonformaldehyde; citric acid polymaleic acid creaseproofing agent

IT Textiles

(cotton; nonformaldehyde wrinkle-free garment finishing of cotton slacks)

IT Clothing

Creaseproofing

Durable press finishing

(nonformaldehyde wrinkle-free garment finishing of cotton slacks)

IT 77-92-9D, Citric acid, reaction products with maleic acid-acrylic acid-vinyl alc. copolymer 105690-13-9D, Maleic acid-acrylic acid-vinyl alcohol copolymer, reaction products with citric acid

RL: TEM (Technical or engineered material use); USES (Uses)

(creaseproofing agent; **nonformaldehyde** wrinkle-free garment finishing of cotton slacks)

IT 105690-13-9D, Maleic acid-acrylic acid-vinyl alcohol copolymer, reaction products with citric acid

RL: TEM (Technical or engineered material use); USES (Uses)

(creaseproofing agent; **nonformaldehyde** wrinkle-free garment finishing of cotton slacks)

RN 105690-13-9 HCAPLUS

CN 2-Butenedioic acid (2Z)-, polymer with ethenol and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5

CMF C2 H4 O

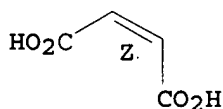
$\text{H}_2\text{C}=\text{CH}-\text{OH}$

CM 2

CRN 110-16-7

CMF C4 H4 O4

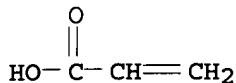
Double bond geometry as shown.



CM 3

CRN 79-10-7

CMF C3 H4 O2



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L92 ANSWER 17 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:629720 HCAPLUS

DN 129:277448

TI Low VOC aqueous coating composition

IN Nkansah, Asare; Williams, Stewart Orlyn; Merritt, Richard Foster

PA Rohm and Haas Co., USA

SO U.S., 6 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5814374	A	19980929	US 1996-666107	19960619
PRAI	US 1996-666107		19960619		

AB The title **film**-forming coating composition comprises at least one aqueous latex polymer binder covalently grafted with polyvinyl alc.; the aqueous latex polymer binder having a glass temperature of -35° to +30° and having a first reactable group selected from beta-ketoester, aldehyde, amine, anhydride, isocyanate, epoxy, and hydrazide; the polyvinyl alc. having a second reactable group selected from beta-ketoester, aldehyde, amine, anhydride, isocyanate, epoxy, and hydrazide which is complementary to the first reactable group in the aqueous latex polymer binder; the coating composition having less than two percent volatile organic compds. based on the

dry weight of the polymer binder. The composition provides excellent hardness and resistance properties in **films** formed from binders having glass transition temps. below ambient temperature. The improvement in **film** properties comes from the binding of functionalized polyvinyl alc. to a complementary functionalized latex binder. The low VOC compns. of this invention are useful for a variety of coatings including paints, stains, varnishes, mastics and adhesives, and are especially useful for architectural substrates.

IC ICM B05D003-02

INCL 427386000

CC 42-10 (Coatings, Inks, and Related Products)

ST low VOC aq coating compn; vinyl alc grafted polymer aq coating

IT Coating materials

(low VOC aqueous coating composition)

IT 213771-68-7P, Acetoacetoxyethyl methacrylate-allyl

methacrylate-butyl acrylate-methacrylic acid-methyl methacrylate-vinyl alcohol graft copolymer 213771-72-3P, Acetoacetoxyethyl

methacrylate-butyl acrylate-methacrylic acid-methyl methacrylate-vinyl alcohol graft copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(low VOC aqueous coating composition)

IT 213771-68-7P, Acetoacetoxyethyl methacrylate-allyl methacrylate-butyl acrylate-methacrylic acid-methyl methacrylate-vinyl alcohol graft copolymer 213771-72-3P, Acetoacetoxyethyl methacrylate-butyl acrylate-methacrylic acid-methyl methacrylate-vinyl alcohol graft copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(low VOC aqueous coating composition)

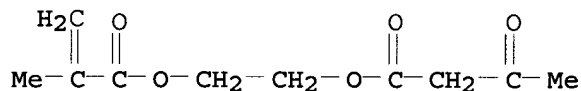
RN 213771-68-7 HCAPLUS

CN Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with butyl 2-propenoate, ethenol, methyl 2-methyl-2-propenoate, 2-methyl-2-propenoic acid and 2-propenyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 21282-97-3

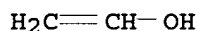
CMF C10 H14 O5



CM 2

CRN 557-75-5

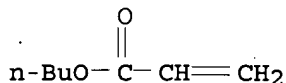
CMF C2 H4 O



CM 3

CRN 141-32-2

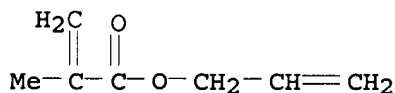
CMF C7 H12 O2



CM 4

CRN 96-05-9

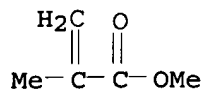
CMF C7 H10 O2



CM 5

CRN 80-62-6

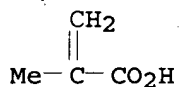
CMF C5 H8 O2



CM 6

CRN 79-41-4

CMF C4 H6 O2



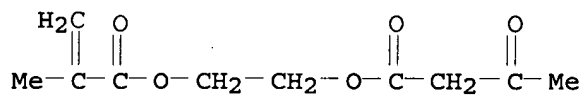
RN 213771-72-3 HCAPLUS

CN Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with butyl 2-propenoate, ethenol, methyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 21282-97-3

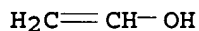
CMF C10 H14 O5



CM 2

CRN 557-75-5

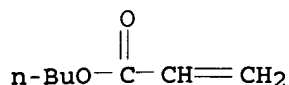
CMF C2 H4 O



CM 3

CRN 141-32-2

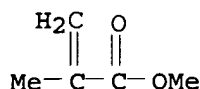
CMF C7 H12 O2



CM 4

CRN 80-62-6

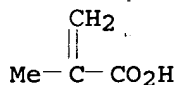
CMF C5 H8 O2



CM 5

CRN 79-41-4

CMF C4 H6 O2



RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L92 ANSWER 18 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:277534 HCAPLUS

DN 128:315151

TI Amido-substituted **acetal** polymers and their use in
photosensitive compositions and lithographic printing plates

IN Baumann, Harald; Dwars, Udo; Savariar-Hauck, Celin; Timpe, Hans-Joachim

PA Sun Chemical Corporation, USA

SO Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 838478	A1	19980429	EP 1997-118533	19971024
	EP 838478	B1	20020227		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	DE 19644515	A1	19980625	DE 1996-19644515	19961025
	ZA 9700154	A	19970716	ZA 1997-154	19970108
	CA 2194723	A1	19980426	CA 1997-2194723	19970109
	US 5925491	A	19990720	US 1997-781313	<u>19970109</u>
	AT 213747	T	20020315	AT 1997-118533	19971024
PRAI	DE 1996-19644515	A	19961025		

AB Vinyl binders with improved phys. properties for manufacture of lithog. printing plates contain ester, OH, **acetal**, and amide groups. A typical binder was manufactured by adding 0.7 g maleic anhydride (dissolved in

10 mL DMSO) and 0.9 g Ac2O (dissolved in 10 mL DMSO) to 10 g 96:4 (mol. ratio) vinyl alc.-vinylamine copolymer (mol. weight 36,000) dissolved in 80 mL DMSO at 10°, heating 30 min at 50°, adding 2.5 mL HCl (37%), 2.4 g AcH, and 3.9 g butyraldehyde dissolved in 10 mL DMSO in 30 min, and stirring 1 h at 50°.

IC ICM C08F008-28

ICS C08F008-32; G03F007-021; G03F007-033

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 37

ST amido **acetal** polymer binder lithog plate; butyralated vinyl alc vinylamine copolymer manuf; **acetalated** vinyl alc vinylamine copolymer manuf; acetylated vinyl alc vinylamine copolymer manuf; maleated vinyl alc vinylamine copolymer manuf

IT Binders

Lithographic plates

Photoimaging materials

(amido-substituted **acetal** polymers for binders in photosensitive compns. and lithog. printing plates)

IT 56-12-2DP, 4-Aminobutyric acid, reaction products with hydrolyzed vinyl acetate-crotonic acid copolymer and aldehydes 74-89-5DP, Methylamine, reaction products with hydrolyzed vinyl acetate-crotonic acid copolymer and aldehydes 75-07-0DP, **Acetaldehyde**, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers, and aldehydes, preparation 93-97-0DP, Benzoic anhydride, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers, and aldehydes 108-24-7DP, Acetic anhydride, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers, and aldehydes 108-31-6DP, Maleic anhydride, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers and aldehydes 123-72-8DP, Butyraldehyde, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers, and aldehydes 150-13-0DP, 4-Aminobenzoic acid, reaction products with hydrolyzed vinyl acetate-crotonic acid copolymer and aldehydes 156-87-6DP, 1-Amino-3-propanol, reaction products with hydrolyzed vinyl acetate-crotonic acid copolymer and aldehydes 25609-89-6DP, Mowilith CT5, hydrolyzed, reaction products with **aldehydes** and amines 29499-22-7DP, Vinylamine-vinyl alcohol copolymer, reaction products with aldehydes and acid anhydrides
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; **USES (Uses)**

(amido-substituted **acetal** polymers for binders in photosensitive compns. and lithog. printing plates)

IT 25609-89-6DP, Mowilith CT5, hydrolyzed, reaction products with **aldehydes** and amines

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; **USES (Uses)**

(amido-substituted **acetal** polymers for binders in photosensitive compns. and lithog. printing plates)

RN 25609-89-6 HCAPLUS

CN 2-Butenoic acid, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 3724-65-0

CMF C4 H6 O2

Me-CH=CH-CO₂H

CM 2

CRN 108-05-4

CMF C4 H6 O2

AcO-CH=CH₂

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L92 ANSWER 19 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:480545 HCAPLUS

DN 127:123030

TI Sulfur-containing oxo acids and their salts for water-thinned resin
modifiers

IN Kitajima, Takashi; Kamiya, Kazusaki; Hayashi, Hiroyasu; Maekawa, Hitoshi

PA Otsuka Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09176369	A	19970708	JP 1995-338474	19951226
PRAI	JP 1995-338474		19951226		

AB The modifiers for water-thinned resins contain ≥ 1 S-containing oxo acids or their salts. The modifiers improve water and weather resistance of water-thinned resins cured with dibasic acid dihydrazides, etc. The compns. are especially suitable for coatings. Thus, 100 parts Bu acrylate-acrylic acid-diacetoneacrylamide copolymer ammonium salt [initial monomer reaction ratio 141.5:32.3 (80% solution):3.7], 20 parts adipic acid dihydrazide 10% solution, and 4 parts NHSO₃ 5% solution were blended to give a composition, which was applied onto a glass plate and dried at 20° for 1 wk to give JIS K 5400 test pieces showing no change of coatings after 18 h in 20°-water or after 2 h in 80°-water and no coloration after 3000 h in Sunshine weather-o-meter or after 1 wk at 80°.

IC ICM C08K003-30

CC 42-7 (Coatings, Inks, and Related Products)

Section cross-reference(s): 37

ST sulfur oxo acid modifier aq coating; water based coating sulfur oxo acid; acrylic coating aq water resistance modifier; sodium sulfite aq coating water resistance; adipic dihydrazide catalyst aq acrylic coating; dibasic acid sulfur oxo acid coating; hydrazide sulfur oxo acid aq coating

IT Crosslinking catalysts

(S-containing oxo acids for water- and weather-resistant aqueous coatings cured

with dihydrazides)

IT Acids, uses

RL: MOA (Modifier or additive use); USES (Uses)

(oxo; S-containing oxo acids for water- and weather-resistant aqueous coatings

cured with dihydrazides)

IT Coating materials

Coating materials

(water-resistant, water-thinned; S-containing oxo acids for water- and weather-resistant aqueous coatings cured with dihydrazides)

IT 497-18-7, Carbohydrazide 1071-93-8 1508-67-4, Glutaric acid dihydrazide 3815-86-9, Malonic acid dihydrazide
 RL: CAT (Catalyst use); USES (Uses)
 (S-containing oxo acids for water- and weather-resistant aqueous coatings cured with dihydrazides)

IT 7631-90-5, Sulfurous acid, monosodium salt 7757-83-7 7772-98-7, Sodium thiosulfate
 RL: MOA (Modifier or additive use); USES (Uses)
 (S-containing oxo acids for water- and weather-resistant aqueous coatings cured with dihydrazides)

IT 192705-98-9P, Acrylic acid-butyl acrylate-diacetoneacrylamide copolymer ammonium salt 192705-99-0P, Crotonaldehyde-crotonic acid-Veova 9 copolymer
 RL: PNU (Preparation, unclassified); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)
 (S-containing oxo acids for water- and weather-resistant aqueous coatings cured with dihydrazides)

IT 39290-68-1, Poly(vinyl alcohol) acetoacetate
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (S-containing oxo acids for water- and weather-resistant aqueous coatings cured with dihydrazides)

IT 192705-99-0P, Crotonaldehyde-crotonic acid-Veova 9 copolymer
 RL: PNU (Preparation, unclassified); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)
 (S-containing oxo acids for water- and weather-resistant aqueous coatings cured with dihydrazides)

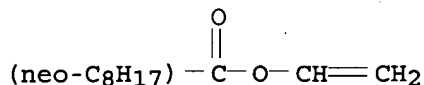
RN 192705-99-0 HCAPLUS
 CN Neononanoic acid, ethenyl ester, polymer with 2-butenal and 2-butenic acid (9CI) (CA INDEX NAME)

CM 1

CRN 54423-67-5

CMF C11 H20 O2

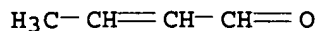
CCI IDS



CM 2

CRN 4170-30-3

CMF C4 H6 O



CM 3

CRN 3724-65-0
CMF C4 H6 O2

Me-CH=CH-CO₂H

L92 ANSWER 20 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:399620 HCAPLUS

DN 127:34640

TI Manufacture of polyvinyl **acetal** resins, the resins and adhesive agent compositions using them

IN Miyake, Yoshitaka; Kamiyama, Takashi

PA Sekisui Chemical Co. Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09124734	A	19970513	JP 1995-280304	19951027
PRAI	JP 1995-280304		19951027		

AB Title process consists of (1) **acetalization** of modified PVA having CO₂M, SO₃M, OSO₃M, PO(OM)₂ and/or P(O)(R)OM (R = H, alkyl; M = H, Li, Na, K) as hydrophilic groups and aldehydes, (2) using alkali metal and/or alkaline earth metal hydroxides as **acetalization** inhibitors and (3) washing with acids. Title polyvinyl **acetal** resins contain ≤10 ppm (as total) alkali metals and/or alkaline earth metals and their metal ions. Title adhesive agent compns. contain the above polyvinyl **acetal** resins having 0.01-5 mol% the above hydrophilic groups. Thus, itaconic acid-modified PVA 220, acetoaldehyde 143, and n-butylaldehyde 3 g were mixed, precipitated, added with NaOH aqueous solution, washed with water, blended with HCl for controlling pH 4-5, heated at 50° for 5 h and dried to give a poly(vinyl **acetal**) with **acetalization** degree 72 mol% containing 3 ppm Na.

IC ICM C08F016-38

ICS C08F008-28; C09J129-14

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 38

ST polyvinyl **acetal** adhesive agent manuf; alkali metal hydroxide polyvinyl **acetal**; acid washing polyvinyl **acetal** hydrophilic PVA

IT Polyvinyl **acetals**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(**acetoacetals**; manufacture of polyvinyl **acetals** from hydrophilic PVA, for adhesive agents)

IT Polyvinyl **acetals**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(formals; manufacture of polyvinyl **acetals** from hydrophilic PVA, for adhesive agents)

IT Adhesives

(manufacture of polyvinyl **acetals** from hydrophilic PVA, for adhesive agents)

IT Polyvinyl butyrals

- RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manufacture of polyvinyl acetals from hydrophilic PVA, for adhesive agents)
- IT Phosphates, preparation
Sulfonic acids, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(reaction products with PVA; manufacture of polyvinyl acetals from hydrophilic PVA, for adhesive agents)
- IT 64-19-7, Acetic acid, uses 7647-01-0, Hydrochloric acid, uses 7664-93-9, Sulfuric acid, uses
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(for acid washing; manufacture of polyvinyl acetals from hydrophilic PVA, for adhesive agents)
- IT 9003-20-7DP, PVA, phosphated, reaction products with aldehydes 9003-20-7DP, PVA, sulfonated, reaction products with aldehydes 34229-80-6DP, Maleic acid-vinyl alcohol copolymer, reaction products with aldehydes 68508-47-4DP, Itaconic acid-vinyl alcohol copolymer, reaction products with aldehydes
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manufacture of polyvinyl acetals from hydrophilic PVA, for adhesive agents)
- IT 1305-62-0, Calcium hydroxide, uses 1310-58-3, Potassium hydroxide, uses 1310-73-2, Sodium hydroxide, uses
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(neutralization agents; manufacture of polyvinyl acetals from hydrophilic PVA, for adhesive agents)
- IT 34229-80-6DP, Maleic acid-vinyl alcohol copolymer, reaction products with aldehydes 68508-47-4DP, Itaconic acid-vinyl alcohol copolymer, reaction products with aldehydes
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manufacture of polyvinyl acetals from hydrophilic PVA, for adhesive agents)
- RN 34229-80-6 HCAPLUS
- CN 2-Butenedioic acid (2Z)-, polymer with ethenol (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5

CMF C2 H4 O

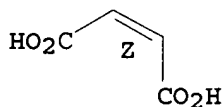
 $\text{H}_2\text{C}=\text{CH}-\text{OH}$

CM 2

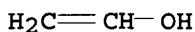
CRN 110-16-7

CMF C4 H4 O4

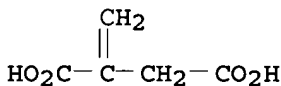
Double bond geometry as shown.



RN 68508-47-4 HCAPLUS
 CN Butanedioic acid, methylene-, polymer with ethenol (9CI) (CA INDEX NAME)
 CM 1
 CRN 557-75-5
 CMF C2 H4 O



CM 2
 CRN 97-65-4
 CMF C5 H6 O4



L92 ANSWER 21 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1997:287575 HCAPLUS
 DN 126:306202
 TI Development of VAC/BA/AN/AA copolymer emulsion
 AU Wang, Yongxian; Cao, Xuzhang
 CS Sch. chem. Eng., Hong Qing Univ., Chungking, 630044, Peop. Rep. China
 SO Zhongguo Jiaonianji (1997), 6(2), 41-42
 CODEN: ZJIAEA; ISSN: 1004-2849
 PB Zhongguo Jiaonianji Bianjibu
 DT Journal
 LA Chinese
 AB Emulsion was prepared from PVA, formaldehyde, and copolymers of vinyl acetate, Bu acrylate, acrylonitrile, and acrylic acid. The stability, water resistance, antifreezing, adhesive strength, and creep resistance of the emulsion adhesive were discussed.
 CC 38-3 (Plastics Fabrication and Uses)
 ST emulsion adhesive water resistance antifreezing; acrylic acrylate acrylonitrile copolymer synthesis; vinyl acetate copolymer emulsion adhesive creep
 IT Polyvinyl acetals
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (formals; synthesis and water resistance, antifreezing, adhesive strength, and creep resistance of emulsion adhesives from vinyl acetate, Bu acrylate, acrylonitrile, and acrylic acid, PVA, and formaldehyde)
 IT Adhesives

(synthesis and water resistance, antifreezing, adhesive strength, and creep resistance of emulsion adhesives from vinyl acetate, Bu acrylate, acrylonitrile, and acrylic acid, PVA, and formaldehyde)

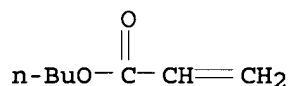
IT 65992-91-8P, Acrylic acid-acrylonitrile-butyl acrylate-vinyl acetate copolymer
RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP** (Preparation); USES (Uses)
(synthesis and water resistance, antifreezing, adhesive strength, and creep resistance of emulsion adhesives from vinyl acetate, Bu acrylate, acrylonitrile, and acrylic acid, PVA, and **formaldehyde**)

IT 65992-91-8P, Acrylic acid-acrylonitrile-butyl acrylate-vinyl acetate copolymer
RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP** (Preparation); USES (Uses)
(synthesis and water resistance, antifreezing, adhesive strength, and creep resistance of emulsion adhesives from vinyl acetate, Bu acrylate, acrylonitrile, and acrylic acid, PVA, and **formaldehyde**)

RN 65992-91-8 HCAPLUS
CN 2-Propenoic acid, polymer with butyl 2-propenoate, ethenyl acetate and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2
CMF C7 H12 O2



CM 2

CRN 108-05-4
CMF C4 H6 O2



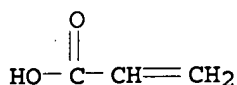
CM 3

CRN 107-13-1
CMF C3 H3 N



CM 4

CRN 79-10-7
CMF C3 H4 O2



L92 ANSWER 22 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:283908 HCAPLUS

DN 126:270425

TI Optical laminated sheet with gas-impermeable layer containing organotitanium compounds

IN Ichikawa, Rinjiro; Torisu, Hiroyuki; Hayashi, Minako

PA Fujimori Kogyo Co, Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09043584	A	19970214	JP 1995-212914	19950727
	JP 3406126	B2	20030512		
PRAI	JP 1995-212914		19950727		

AB The laminated sheet, useful as electrode substrates for liquid-crystal displays, etc., comprises (1) a substrate film, (2) a gas-impermeable layer formed on (1) directly or through an anchor coating layer, and (3) a cured resin layer formed on (2) directly or through an anchor coating layer, and the gas-impermeable layer is made from a composition containing poly(vinyl alc.) resin and an organotitanium compound as essential components and a crosslinking agent for the resin as an arbitrary component. The sheet shows good heat resistance and hardness.

ICM G02F001-1333

ICS B32B007-02; B32B027-00; B32B027-18; H05K001-03

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST optical laminated sheet impermeable layer; gas impermeable layer optical sheet; PVA impermeable layer optical sheet; organotitanium impermeable layer optical sheet

IT Liquid crystal displays

(electrode substrates for; optical laminated sheet with heat-resistant gas-impermeable layer containing organotitanium compds.)

IT Optical materials

(laminated sheet; optical laminated sheet with heat-resistant gas-impermeable layer containing organotitanium compds.)

IT Laminated plastics, uses

RL: DEV (Device component use); USES (Uses)

(optical laminated sheet with heat-resistant gas-impermeable layer containing organotitanium compds.)

IT 16902-59-3 188779-88-6

RL: DEV (Device component use); MOA (Modifier or additive use); PRP (Properties); USES (Uses)

(optical laminated sheet with heat-resistant gas-impermeable layer containing organotitanium compds.)

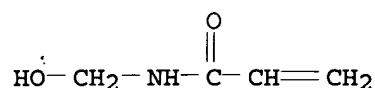
IT 188779-87-5P, Acrylic acid-formaldehyde

-N-methylolacrylamide-Triaminotriazine-vinyl alcohol graft copolymer

RL: DEV (Device component use); PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation); USES (Uses)

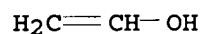
(optical laminated sheet with heat-resistant gas-impermeable layer containing organotitanium compds.)

IT 188779-87-5P, Acrylic acid-formaldehyde
-N-methylolacrylamide-Triaminotriazine-vinyl alcohol graft copolymer
RL: DEV (Device component use); PNU (Preparation, unclassified); PRP
(Properties); PREP (Preparation); USES (Uses)
(optical laminated sheet with heat-resistant gas-impermeable layer
containing organotitanium compds.)
RN 188779-87-5 HCAPLUS
CN 2-Propenoic acid, polymer with ethenol, formaldehyde, N-(hydroxymethyl)-2-
propenamide and 1,3,5-triazine-2,4,6-triamine, graft (9CI) (CA INDEX
NAME)
CM 1
CRN 924-42-5
CMF C4 H7 N O2



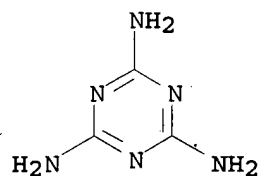
CM 2

CRN 557-75-5
CMF C2 H4 O



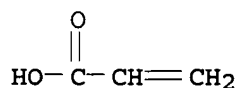
CM 3

CRN 108-78-1
CMF C3 H6 N6



CM 4

CRN 79-10-7
CMF C3 H4 O2



CM 5

CRN 50-00-0

CMF C H2 O

 $H_2C=O$

L92 ANSWER 23 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1996:759110 HCAPLUS

DN 126:20215

TI Thermoset paint compositions

IN Hayakawa, Takeshi; Shibato, Kishio; Monma, Yasuhiro

PA BASF Lacke & Farben AG, Germany; NOF Corporation

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9634064	A1	19961031	WO 1996-EP1633	19960419
	W: BR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 08295843	A	19961112	JP 1995-102743	19950426
	JP 3533751	B2	20040531		
	EP 822966	A1	19980211	EP 1996-914948	19960419
	EP 822966	B1	19990630		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
	AT 181744	T	19990715	AT 1996-914948	19960419
	BR 9608002	A	19991130	BR 1996-8002	19960419
	ES 2136993	T3	19991201	ES 1996-914948	19960419
	US 6689839	B1	20040210	US 1998-952566	19980911
PRAI	JP 1995-102743	A	19950426		
	WO 1996-EP1633	W	19960419		

AB Comps. which form paint films with $T_g \geq 50^\circ$, which have excellent acid resistance, abrasion resistance and adhesion, and which retain their water repellency and stain resistance for a longer period of time than with the conventional fluorine resin based paint films, contain (a) 20-80 weight% fluoropolymer with solubility parameter 9.0-10.5 and OH value 60-150 mg KOH/g; (b) 20-80 weight% vinyl (co)polymer with solubility parameter 9.0-10.5 and OH value 60-150 mg KOH/g which contains $\geq 10\%$ units derived from a monomer having the structure $CH_2:CR_1CO_2(CH_2)iCHR_2CHR_3O[(CO)j(CH_2)kCHR_4(CH_2)mCHR_5O]nH$ [$R_1-R_5 = H, Me; i = 0-2; j = 0-1; k, m = 0-3; n = 0-10$]; (c) 5-40 weight% alkyl-etherified melamine resin; and (d) 2-40 weight% blocked polyisocyanate. The paints are useful as automotive topcoats.

IC ICM C09D175-04

ICS C08G018-62

ICI C09D175-04, C09D161-32

CC 42-10 (Coatings, Inks, and Related Products)

ST fluoropolymer vinyl polymer paint compn; automotive topcoat thermoset compn

IT Paints

(thermoset paint compns. for automotive topcoats)

IT Fluoropolymers, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermoset paint compns. for automotive topcoats)

IT Coating materials
(topcoats; thermoset paint compns. for automotive topcoats)

IT 184486-24-6P, Acrylic acid-butyl acrylate-chlorotrifluoroethylene-cyclohexyl methacrylate-cyclohexyl vinyl ether-Desmodur BL 3175-2-ethylhexyl methacrylate-**formaldehyde**-4-hydroxybutyl vinyl ether-isobutyl vinyl ether-melamine-Placel FM 1 copolymer 184486-25-7P, Acrylic acid-tert-butyl acrylate-chlorotrifluoroethylene-cyclohexyl methacrylate-cyclohexyl vinyl ether-Desmodur TPLS 2759-2-ethylhexyl methacrylate-**formaldehyde**-4-hydroxybutyl vinyl ether-isobutyl vinyl ether-melamine-Placel FM 1 copolymer 184486-26-8P, Acrylic acid-tert-butyl acrylate-chlorotrifluoroethylene-Coronate 2513-cyclohexyl methacrylate-cyclohexyl vinyl ether-2-ethylhexyl methacrylate-**formaldehyde**-4-hydroxybutyl vinyl ether-melamine-Placel FM 1-vinyl propionate copolymer 184486-27-9P, Acrylic acid-tert-butyl acrylate-chlorotrifluoroethylene-cyclohexyl methacrylate-cyclohexyl vinyl ether-Desmodur BL 3175-2-ethylhexyl methacrylate-**formaldehyde**-4-hydroxybutyl vinyl ether-isobutyl vinyl ether-melamine-Placel FM 1 copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermoset paint compns. for automotive topcoats)

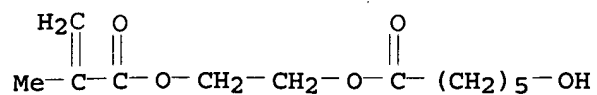
IT 184486-24-6P, Acrylic acid-butyl acrylate-chlorotrifluoroethylene-cyclohexyl methacrylate-cyclohexyl vinyl ether-Desmodur BL 3175-2-ethylhexyl methacrylate-**formaldehyde**-4-hydroxybutyl vinyl ether-isobutyl vinyl ether-melamine-Placel FM 1 copolymer 184486-25-7P, Acrylic acid-tert-butyl acrylate-chlorotrifluoroethylene-cyclohexyl methacrylate-cyclohexyl vinyl ether-Desmodur TPLS 2759-2-ethylhexyl methacrylate-**formaldehyde**-4-hydroxybutyl vinyl ether-isobutyl vinyl ether-melamine-Placel FM 1 copolymer 184486-26-8P, Acrylic acid-tert-butyl acrylate-chlorotrifluoroethylene-Coronate 2513-cyclohexyl methacrylate-cyclohexyl vinyl ether-2-ethylhexyl methacrylate-**formaldehyde**-4-hydroxybutyl vinyl ether-melamine-Placel FM 1-vinyl propionate copolymer 184486-27-9P, Acrylic acid-tert-butyl acrylate-chlorotrifluoroethylene-cyclohexyl methacrylate-cyclohexyl vinyl ether-Desmodur BL 3175-2-ethylhexyl methacrylate-**formaldehyde**-4-hydroxybutyl vinyl ether-isobutyl vinyl ether-melamine-Placel FM 1 copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermoset paint compns. for automotive topcoats)

RN 184486-24-6 HCAPLUS
CN Hexanoic acid, 6-hydroxy-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with butyl 2-propenoate, chlorotrifluoroethene, cyclohexyl 2-methyl-2-propenoate, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, 1-(ethenyloxy)-2-methylpropane, 2-ethylhexyl 2-methyl-2-propenoate, formaldehyde, 2-propenoic acid, 1,3,5-triazine-2,4,6-triamine and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

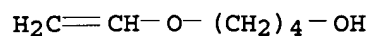
CRN 85099-10-1
CMF C12 H20 O5



CM 2

CRN 17832-28-9

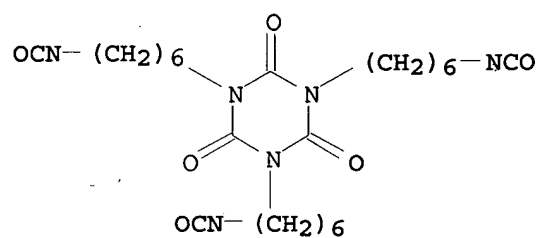
CMF C6 H12 O2



CM 3

CRN 3779-63-3

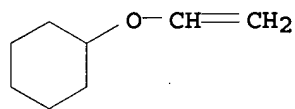
CMF C24 H36 N6 O6



CM 4

CRN 2182-55-0

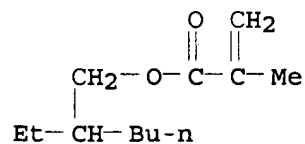
CMF C8 H14 O



CM 5

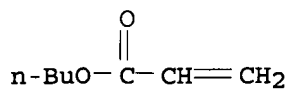
CRN 688-84-6

CMF C12 H22 O2



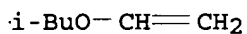
CM 6

CRN 141-32-2
CMF C7 H12 O2



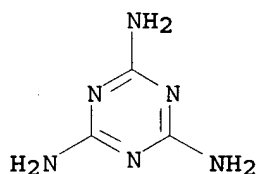
CM 7

CRN 109-53-5
CMF C6 H12 O



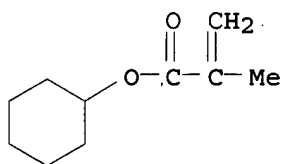
CM 8

CRN 108-78-1
CMF C3 H6 N6



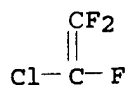
CM 9

CRN 101-43-9
CMF C10 H16 O2

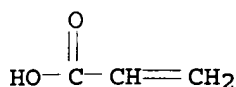


CM 10

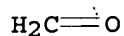
CRN 79-38-9
CMF C2 Cl F3



CM 11

CRN 79-10-7
CMF C3 H4 O2

CM 12

CRN 50-00-0
CMF C H2 O

RN 184486-25-7 HCAPLUS

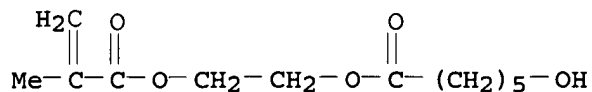
CN Hexanoic acid, 6-hydroxy-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with chlorotrifluoroethene, cyclohexyl 2-methyl-2-propenoate, Desmodur TPLS 2759, 1,1-dimethylethyl 2-propenoate, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, 1-(ethenyloxy)-2-methylpropane, 2-ethylhexyl 2-methyl-2-propenoate, formaldehyde, 2-propenoic acid and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 141255-39-2
CMF Unspecified
CCI PMS, MAN

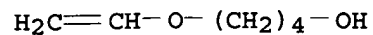
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 85099-10-1
CMF C12 H20 O5

CM 3

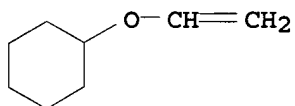
CRN 17832-28-9
CMF C6 H12 O2



CM 4

CRN 2182-55-0

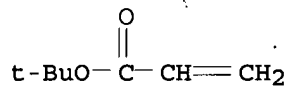
CMF C8 H14 O



CM 5

CRN 1663-39-4

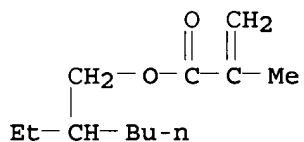
CMF C7 H12 O2



CM 6

CRN 688-84-6

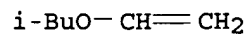
CMF C12 H22 O2



CM 7

CRN 109-53-5

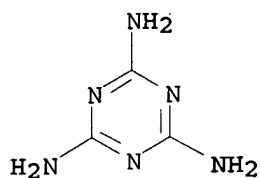
CMF C6 H12 O



CM 8

CRN 108-78-1

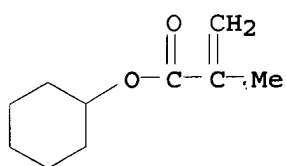
CMF C3 H6 N6



CM 9

CRN 101-43-9

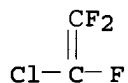
CMF C10 H16 O2



CM 10

CRN 79-38-9

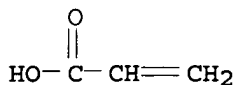
CMF C2 C1 F3



CM 11

CRN 79-10-7

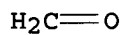
CMF C3 H4 O2



CM 12

CRN 50-00-0

CMF C H2 O



RN 184486-26-8 HCAPLUS

CN Hexanoic acid, 6-hydroxy-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester,

polymer with chlorotrifluoroethene, Coronate 2513, cyclohexyl
2-methyl-2-propenoate, 1,1-dimethylethyl 2-propenoate,
4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, ethenyl propanoate,
2-ethylhexyl 2-methyl-2-propenoate, formaldehyde, 2-propenoic acid and
1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 115515-45-2

CMF Unspecified

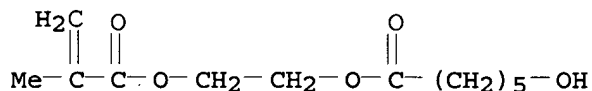
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 85099-10-1

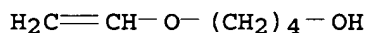
CMF C12 H20 O5



CM 3

CRN 17832-28-9

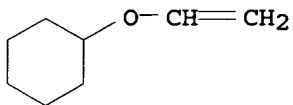
CMF C6 H12 O2



CM 4

CRN 2182-55-0

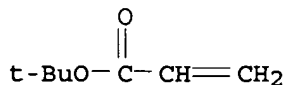
CMF C8 H14 O



CM 5

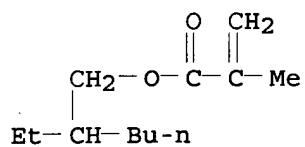
CRN 1663-39-4

CMF C7 H12 O2



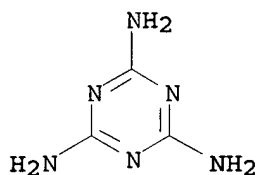
CM 6

CRN 688-84-6
CMF C12 H22 O2



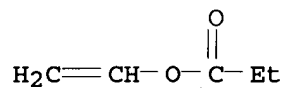
CM 7

CRN 108-78-1
CMF C3 H6 N6



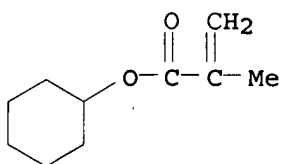
CM 8

CRN 105-38-4
CMF C5 H8 O2



CM 9

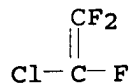
CRN 101-43-9
CMF C10 H16 O2



CM 10

CRN 79-38-9

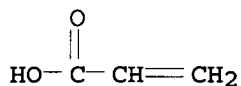
CMF C2 Cl F3



CM 11

CRN 79-10-7

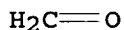
CMF C3 H4 O2



CM 12

CRN 50-00-0

CMF C H2 O



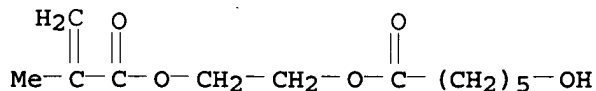
RN 184486-27-9 HCAPLUS

CN Hexanoic acid, 6-hydroxy-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with chlorotrifluoroethene, cyclohexyl 2-methyl-2-propenoate, 1,1-dimethylethyl 2-propenoate, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, 1-(ethenyloxy)-2-methylpropane, 2-ethylhexyl 2-methyl-2-propenoate, formaldehyde, 2-propenoic acid, 1,3,5-triazine-2,4,6-triamine and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 85099-10-1

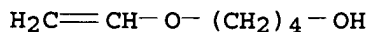
CMF C12 H20 O5



CM 2

CRN 17832-28-9

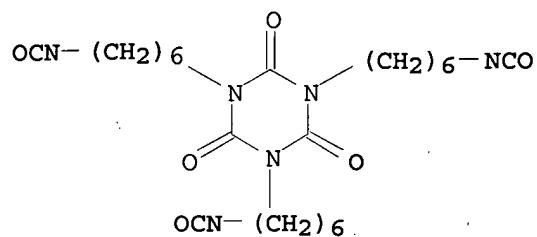
CMF C6 H12 O2



CM 3

CRN 3779-63-3

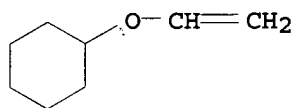
CMF C24 H36 N6 O6



CM 4

CRN 2182-55-0

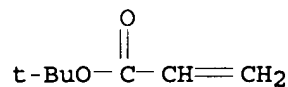
CMF C8 H14 O



CM 5

CRN 1663-39-4

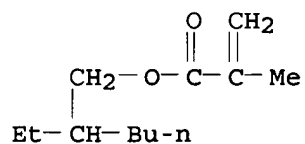
CMF C7 H12 O2



CM 6

CRN 688-84-6

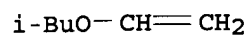
CMF C12 H22 O2



CM 7

CRN 109-53-5

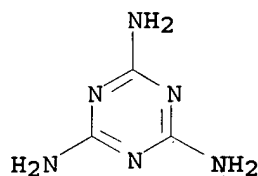
CMF C6 H12 O



CM 8

CRN 108-78-1

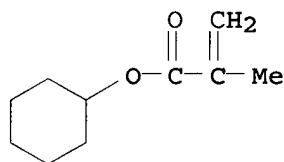
CMF C3 H6 N6



CM 9

CRN 101-43-9

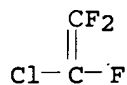
CMF C10 H16 O2



CM 10

CRN 79-38-9

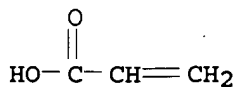
CMF C2 Cl F3



CM 11

CRN 79-10-7

CMF C3 H4 O2



CM 12

CRN 50-00-0

CMF C H2 O

 $\text{H}_2\text{C}=\text{O}$

L92 ANSWER 24 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1996:593538 HCAPLUS

DN 126:19949

TI Possibilities of synthesis of ultrafiltration and reverse osmosis membranes by the method of electrochemical initiation of polymerization

AU Kolzunova, L. G.; Kalugina, I. Yu.; Kovarskii, N. Ya.

CS Institut Khimii, Vladivostok, Russia

SO Zhurnal Prikladnoi Khimii (Sankt-Peterburg) (1996), 69(1), 135-141

CODEN: ZPKHAB; ISSN: 0044-4618

PB Nauka

DT Journal

LA Russian

AB A new method of preparation of membranes was considered. It is based on electrochem. polymerization of monomers, which affords porous permeable films on the cathode. Conditions of electrochem. initiation, regimes of electrochem. polymerization, and procedures of separation of the films prepared were developed. Membranes based on copolymers of acrylamide and formaldehyde, and sometimes other comonomers (acrylic acid, vinyl acetate) were prepared and their properties were characterized.

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 72

ST copolymn electrochem acrylamide formaldehyde membrane prepn

IT Anodes

RL: DEV (Device component use); USES (Uses)

(anode; electrochem. preparation and properties of ultrafiltration and reverse osmosis membranes based on acrylic compound-formaldehyde copolymers)

IT Ultrafilters

(electrochem. preparation and properties of membranes based on acrylic compound-formaldehyde copolymers)

IT Reverse osmosis

(membranes; electrochem. preparation and properties of ultrafiltration and reverse osmosis membranes based on acrylic compound-formaldehyde copolymers)

IT Membranes, nonbiological

(reverse-osmosis; electrochem. preparation and properties of ultrafiltration and reverse osmosis membranes based on acrylic compound-formaldehyde copolymers)

IT 7440-32-6, Titanium, uses

RL: DEV (Device component use); USES (Uses)

(PTM or PTES; electrochem. preparation and properties of ultrafiltration and reverse osmosis membranes based on acrylic compound-formaldehyde copolymers)

IT 7440-06-4, Platinum, uses

RL: DEV (Device component use); USES (Uses)

(anode; electrochem. preparation and properties of ultrafiltration and reverse osmosis membranes based on acrylic compound-formaldehyde copolymers)

IT 7646-85-7, Zinc chloride, uses

RL: CAT (Catalyst use); NUU (Other use, unclassified); USES (Uses)
(catalyst and pore-forming agent; electrochem. preparation and properties of ultrafiltration and reverse osmosis membranes based on acrylic compound-formaldehyde copolymers)

IT 7440-02-0, Nickel, uses
RL: DEV (Device component use); USES (Uses)
(cathode or anode; electrochem. preparation and properties of ultrafiltration and reverse osmosis membranes based on acrylic compound-formaldehyde copolymers)

IT 12597-69-2, Steel, uses 12616-75-0, AD 33 12721-09-4, VT 10
RL: DEV (Device component use); USES (Uses)
(cathode; electrochem. preparation and properties of ultrafiltration and reverse osmosis membranes based on acrylic compound-formaldehyde copolymers)

IT 25103-80-4P, Acrylamide-formaldehyde copolymer
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(electrochem. preparation and properties of ultrafiltration and reverse osmosis membranes based on acrylic compound-formaldehyde copolymers)

IT 53925-54-5P, Acrylamide-formaldehyde-N,N'-methylene-bis(acrylamide) copolymer 63663-08-1P, Acrylamide-acrylic acid-formaldehyde copolymer 184091-96-1P, Acrylamide-acrylic acid-formaldehyde-vinyl acetate copolymer
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(electrochem. preparation and properties of ultrafiltration and reverse osmosis membranes based on acrylic compound-formaldehyde copolymers)

IT 184091-96-1P, Acrylamide-acrylic acid-formaldehyde-vinyl acetate copolymer
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(electrochem. preparation and properties of ultrafiltration and reverse osmosis membranes based on acrylic compound-formaldehyde copolymers)

RN 184091-96-1 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate, formaldehyde and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 108-05-4

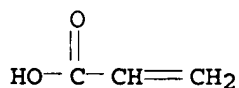
CMF C4 H6 O2



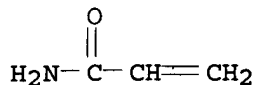
CM 2

CRN 79-10-7

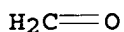
CMF C3 H4 O2



CM 3

CRN 79-06-1
CMF C3 H5 N O

CM 4

CRN 50-00-0
CMF C H2 O

L92 ANSWER 25 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1996:566983 HCAPLUS

DN 125:197911

TI Radiation-curable acrylate copolymers prepared by radical polymerization, especially for use as adhesives

IN Czech, Zbigniew

PA Lohmann Gmbh und Co Kg, Germany

SO Ger. Offen., 10 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19501024	A1	19960718	DE 1995-19501024	19950114
	DE 19501024	C2	19990923		
PRAI	DE 1995-19501024		19950114		

AB The title copolymers are prepared from C4-12 alkyl (meth)acrylates, ethylenically unsatd. carboxylic acids, and monomers H2C:CHOCO2R or H2C:CHOCONHR (R = benzophenone-, acetophenone-, benzil-, benzoin-, cyclohexyl Ph ketone-, fluorene-, or anthraquinone-based group or similar group capable of catalyzing radiochem. crosslinking). The copolymers are especially useful in melt form for application to a support (e.g., polyester film) and curing in UV light to give adhesives showing good adhesion (e.g., to steel and glass) and cohesion even at high temps. A copolymer was prepared by copolymerizing 2-ethylhexyl acrylate, acrylic acid, and 4-(vinylloxycarbonyloxy)benzophenone in AcOEt in the presence of AIBN.

IC ICM C08F020-18

ICS C08F018-24; C08F002-50; C08F018-22

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 35, 37

ST adhesive acrylate copolymer photocrosslinking catalyst monomer; benzophenone vinyl deriv acrylate copolymer photocrosslinking; ketone vinyl deriv acrylate copolymer photocrosslinking; tape adhesive acrylate copolymer photocrosslinking catalyst; crosslinking photochem catalyst acrylate copolymer adhesive; polymn radical acrylate photoinitiator adhesive photocuring

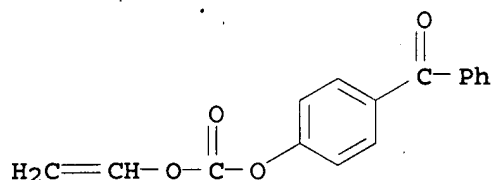
IT Adhesives

- (alkyl acrylate-unsatd. acid-photoinitiator copolymers as photocurable)
- IT Adhesive tapes
(alkyl acrylate-unsatd. acid-photoinitiator copolymers as photocurable adhesives for)
- IT Cohesion
(alkyl acrylate-unsatd. acid-photoinitiator copolymers as photocurable adhesives with good)
- IT Crosslinking
(photochem., of alkyl acrylate-unsatd. acid-photoinitiator copolymers as adhesives)
- IT Crosslinking catalysts
(photochem., vinyl compds.; copolymn. with alkyl acrylates and unsatd. acids in preparation of photocurable adhesives)
- IT Polymerization
(radical, in preparation of alkyl acrylate-unsatd. acid-photoinitiator copolymers for use as photocurable adhesives)
- IT 181127-92-4P, Acrylic acid-2-ethylhexyl acrylate-4-(vinylloxycarbonyloxy)benzophenone copolymer 181127-94-6P, Acrylic acid-2-ethylhexyl acrylate-isooctyl acrylate-4-(vinylloxycarbonyloxy)benzophenone copolymer 181127-98-0P 181128-00-7P 181128-02-9P 181128-04-1P 181128-06-3P 181128-08-5P 181128-11-0P 181128-13-2P 181128-15-4P 181128-17-6P 181128-19-8P 181128-21-2P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and photocuring as adhesive for adhesive tape)
- IT 181127-92-4P, Acrylic acid-2-ethylhexyl acrylate-4-(vinylloxycarbonyloxy)benzophenone copolymer 181127-94-6P, Acrylic acid-2-ethylhexyl acrylate-isooctyl acrylate-4-(vinylloxycarbonyloxy)benzophenone copolymer 181128-04-1P 181128-13-2P 181128-19-8P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and photocuring as adhesive for adhesive tape)
- RN 181127-92-4 HCAPLUS
- CN 2-Propenoic acid, polymer with 4-benzoylphenyl ethenyl carbonate and 2-ethylhexyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 180977-50-8

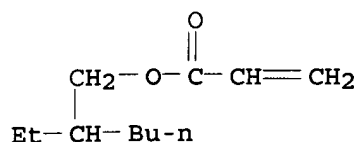
CMF C16 H12 O4



CM 2

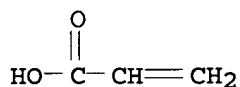
CRN 103-11-7

CMF C11 H20 O2



CM 3

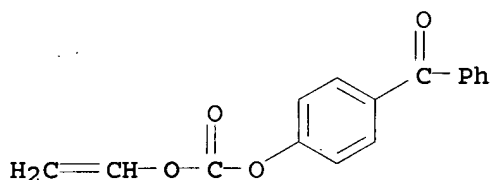
CRN 79-10-7
CMF C3 H4 O2



RN 181127-94-6 HCAPLUS
CN 2-Propenoic acid, polymer with 4-benzoylphenyl ethenyl carbonate,
2-ethylhexyl 2-propenoate and isooctyl 2-propenoate (9CI) (CA INDEX NAME)

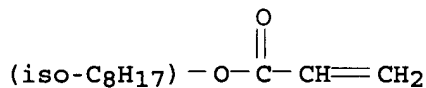
CM 1

CRN 180977-50-8
CMF C16 H12 O4



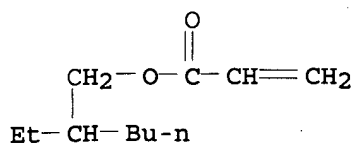
CM 2

CRN 29590-42-9
CMF C11 H20 O2
CCI IDS



CM 3

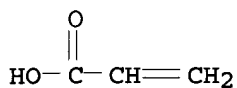
CRN 103-11-7
CMF C11 H20 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



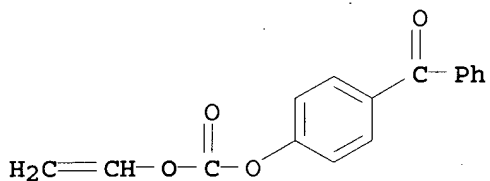
RN 181128-04-1 HCAPLUS

CN 2-Propenoic acid, polymer with 4-benzoylphenyl ethenyl carbonate, butyl 2-propenoate, 2-carboxyethyl 2-propenoate, ethenyl acetate and isooctyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 180977-50-8

CMF C16 H12 O4

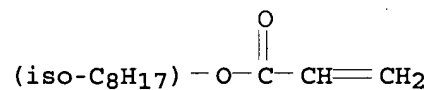


CM 2

CRN 29590-42-9

CMF C11 H20 O2

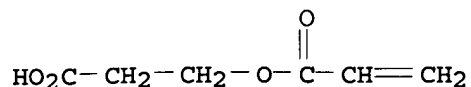
CCI IDS



CM 3

CRN 24615-84-7

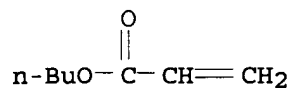
CMF C6 H8 O4



CM 4

CRN 141-32-2

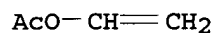
CMF C7 H12 O2



CM 5

CRN 108-05-4

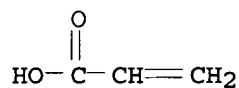
CMF C4 H6 O2



CM 6

CRN 79-10-7

CMF C3 H4 O2



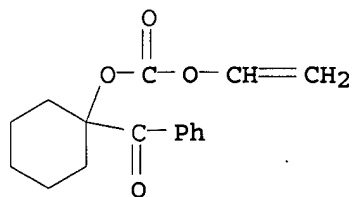
RN 181128-13-2 HCAPLUS

CN 2-Propenoic acid, polymer with 1-benzoylcyclohexyl ethenyl carbonate, butyl 2-propenoate, 2-carboxyethyl 2-propenoate, ethenyl acetate, 2-ethylhexyl 2-propenoate and 2-hydroxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 180977-68-8

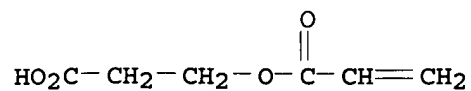
CMF C16 H18 O4



CM 2

CRN 24615-84-7

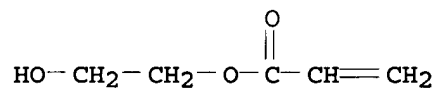
CMF C6 H8 O4



CM 3

CRN 818-61-1

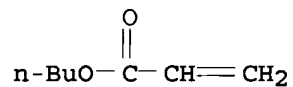
CMF C5 H8 O3



CM 4

CRN 141-32-2

CMF C7 H12 O2



CM 5

CRN 108-05-4

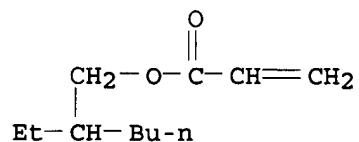
CMF C4 H6 O2



CM 6

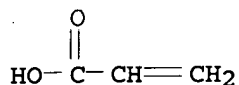
CRN 103-11-7

CMF C11 H20 O2



CM 7

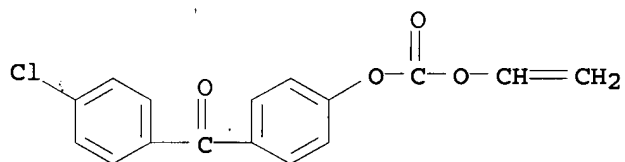
CRN 79-10-7
CMF C3 H4 O2



RN 181128-19-8 HCAPLUS
CN 2-Propenoic acid, polymer with 4-(4-chlorobenzoyl)phenyl ethenyl carbonate and isooctyl 2-propenoate (9CI) (CA INDEX NAME)

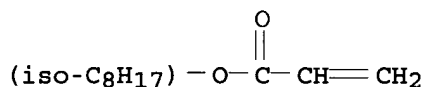
CM 1

CRN 180977-51-9
CMF C16 H11 Cl O4



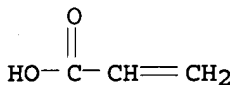
CM 2

CRN 29590-42-9
CMF C11 H20 O2
CCI IDS



CM 3

CRN 79-10-7
CMF C3 H4 O2



L92 ANSWER 26 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:301113 HCAPLUS
DN 124:318856
TI Compounds with photoreactive groups and their use in photocrosslinkable

adhesives
 IN Czech, Zbigniew
 PA Lohmann Gmbh und Co Kg, Germany
 SO Ger. Offen., 13 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4433290	A1	19960321	DE 1994-4433290	19940919
	DE 4447615	A1	19960711	DE 1994-4447615	19940919
PRAI	DE 1994-4433290	A3	19940919		

OS MARPAT 124:318856

AB Aromatic ketones, fluorenones, or anthraquinones containing reactive aziridinyl,

oxiranyl, or isocyanato groups are reacted with carboxy groups of acrylic polymers, and the products are photocrosslinked to give adhesives showing good cohesion and adhesion. Reacting propylenimine with 4-(chlorocarbonyl)-9H-fluoren-9-one gave 4-(2-methylaziridin-1-ylcarbonyl)-9H-fluoren-9-one which was reacted with an acrylamide-acrylic acid-Bu acrylate copolymer to give a product which was crosslinked in UV light to prepare an adhesive.

IC ICM C07D203-18

ICS C07D303-12; C07C271-42; C07D405-06; C09J133-04; C09J133-14; C09J135-02; C09J007-02

ICA C08J003-28; C08F008-30; C08F008-14; C07C265-02; C07D303-04

ICI C09J133-06, C09J133-14, C09J131-04, C09J133-24; C07D405-06, C07D203-18, C07D307-91

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 27, 35, 38

ST acrylic polymer photocrosslinking adhesive cohesion; aziridinylcarbonyl deriv ketone adhesive photocrosslinking; oxiranyl deriv ketone adhesive photocrosslinking; isocyanate deriv ketone adhesive photocrosslinking; fluorenone aziridinylcarbonyl deriv adhesive photocrosslinking; anthraquinone aziridinylcarbonyl deriv adhesive photocrosslinking; crosslinking UV acrylic adhesive cohesion

IT Cohesion

(aromatic ketone-modified acrylic adhesives for photocrosslinking for good adhesion and)

IT Adhesives

(aromatic ketone-modified acrylic polymers for photocrosslinking for good adhesion and cohesion)

IT Ketones, uses

RL: CAT (Catalyst use); USES (Uses)

(aryl, catalysts; in acrylic adhesives for photocrosslinking for good adhesion and cohesion)

IT Crosslinking catalysts

(photochem., aromatic ketones; in acrylic adhesives for good adhesion and cohesion after curing)

IT Crosslinking

(photochem., of aromatic ketone-modified acrylic adhesives for good adhesion and cohesion)

IT 19533-07-4DP, reaction products with carboxy-containing acrylic polymers 25119-83-9DP, Acrylic acid-butyl acrylate copolymer, reaction products with aziridinyl group-containing aromatic ketones 26634-78-6DP, Acrylic acid-2-ethylhexyl acrylate-vinyl acetate copolymer, reaction products with aziridinyl group-containing aromatic ketones 27811-98-9DP, reaction products with aziridinyl group-containing aromatic ketones 28807-36-5DP, Acrylic acid-butyl acrylate-2-hydroxypropyl methacrylate copolymer,

reaction products with aziridinyl group-containing aromatic ketones
 32731-50-3DP, Acrylic acid-butyl acrylate-N-methylolacrylamide copolymer,
 reaction products with aziridinyl group-containing aromatic ketones
 32731-54-7DP, Acrylic acid-2-ethylhexyl acrylate-N-methylolacrylamide
 copolymer, reaction products with aziridinyl group-containing aromatic ketones
 40085-43-6DP, Acrylamide-acrylic acid-2-ethylhexyl acrylate copolymer,
 reaction products with aziridinyl group-containing aromatic ketones
 80372-77-6DP, β -Acryloyloxypropionic acid-ethyl acrylate copolymer,
 reaction products with aziridinyl group-containing aromatic ketones
 128679-81-2DP, β -Acryloyloxypropionic acid-butyl acrylate copolymer,
 reaction products with aziridinyl group-containing aromatic ketones
 154749-31-2DP, Acrylic acid- β -acryloyloxypropionic acid-2-ethylhexyl
 acrylate copolymer, reaction products with isocyanato group-containing aromatic
 ketones 176543-87-6DP, 4-(2-Methylaziridin-1-ylcarbonyl)benzophenone,
 reaction products with carboxy-containing acrylic polymers 176543-88-7DP,
 4-(2-Methylaziridin-1-ylcarbonyl)-9H-fluoren-9-one, reaction products with
 carboxy-containing acrylic polymers 176543-89-8DP, reaction products with
 carboxy-containing acrylic polymers 176543-90-1DP, reaction products with
 carboxy-containing acrylic polymers 176543-91-2DP, reaction products with
 carboxy-containing acrylic polymers 176543-92-3DP, reaction products with
 carboxy-containing acrylic polymers 176543-93-4DP, reaction products with
 carboxy-containing acrylic polymers 176543-94-5DP, reaction products with
 carboxy-containing acrylic polymers 176543-95-6DP, reaction products with
 carboxy-containing acrylic polymers 176543-96-7DP, β -
 Acryloyloxypropionic acid-ethyl acrylate-2-ethylhexyl acrylate-N-
 methylolacrylamide-vinyl acetate copolymer, reaction products with
 aziridinyl group-containing aromatic ketones 176543-97-8DP,

Acrylamide-acrylic

acid- β -acryloyloxypropionic acid-butyl acrylate-N-methylolacrylamide
 copolymer, reaction products with aziridinyl group-containing aromatic ketones
 176543-98-9DP, β -Acryloyloxypropionic acid-butyl acrylate-ethyl
 acrylate-2-hydroxypropyl methacrylate copolymer, reaction products with
 aziridinyl group-containing aromatic ketones 176543-99-0DP,
 β -Acryloyloxypropionic acid-butyl acrylate-2-ethylhexyl
 acrylate-vinyl acetate copolymer, reaction products with oxiranyl
 group-containing aromatic ketones 176544-00-6DP, β -Acryloyloxypropionic
 acid-butyl acrylate-N-methylolacrylamide copolymer, reaction products with
 aziridinyl group-containing aromatic ketones 176544-01-7DP, Acrylic
 acid-butyl acrylate-ethyl acrylate-2-ethylhexyl acrylate-2-hydroxypropyl
 methacrylate-vinyl acetate copolymer, reaction products with aziridinyl
 group-containing aromatic ketones

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
 engineered material use); **PREP (Preparation)**; USES (Uses)

(adhesives; preparation and photocrosslinking for good adhesion and
 cohesion)

- IT 176543-87-6P, 4-(2-Methylaziridin-1-ylcarbonyl)benzophenone
 176543-88-7P, 4-(2-Methylaziridin-1-ylcarbonyl)-9H-fluoren-9-one
 RL: IMF (Industrial manufacture); RCT (Reactant); **PREP (Preparation)**; RACT
 (Reactant or reagent)
 (preparation and reaction with carboxy-containing polymers)
- IT 75-55-8, Propylenimine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with chlorocarbonyl derivs. of aromatic ketones)
- IT 611-95-0, 4-Carboxybenzophenone 7071-83-2, 4-Chlorocarbonyl-9H-fluoren-9-
 one
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with propylenimine)
- IT 26634-78-6DP, Acrylic acid-2-ethylhexyl acrylate-vinyl acetate
 copolymer, reaction products with aziridinyl group-containing aromatic
 ketones 176544-01-7DP, Acrylic acid-butyl acrylate-ethyl

acrylate-2-ethylhexyl acrylate-2-hydroxypropyl methacrylate-vinyl acetate copolymer, reaction products with aziridinyl group-containing aromatic ketones

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(adhesives; preparation and photocrosslinking for good adhesion and cohesion)

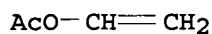
RN 26634-78-6 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate and 2-ethylhexyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 108-05-4

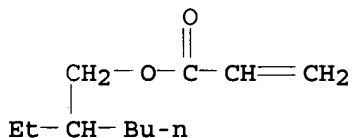
CMF C4 H6 O2



CM 2

CRN 103-11-7

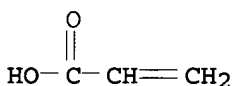
CMF C11 H20 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



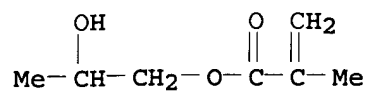
RN 176544-01-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxypropyl ester, polymer with butyl 2-propenoate, ethenyl acetate, 2-ethylhexyl 2-propenoate, ethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 923-26-2

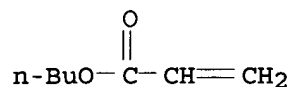
CMF C7 H12 O3



CM 2

CRN 141-32-2

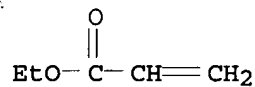
CMF C7 H12 O2



CM 3

CRN 140-88-5

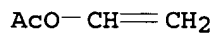
CMF C5 H8 O2



CM 4

CRN 108-05-4

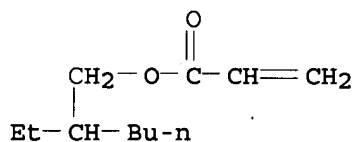
CMF C4 H6 O2



CM 5

CRN 103-11-7

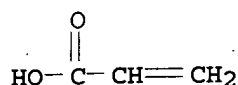
CMF C11 H20 O2



CM 6

CRN 79-10-7

CMF C3 H4 O2



L92 ANSWER 27 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:576920 HCAPLUS

DN 123:171466

TI Crosslinking agents and water-based polymer compositions

IN Takao, Yoshiko; Watanabe, Kyoshi; Mori, Hidekazu

PA Nippon Zeon Co, Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07062146	A	19950307	JP 1993-229677	19930824
PRAI	JP 1993-229677		19930824		

AB The crosslinking agents, capable to crosslink the polymers without forming HCHO, contain ≥ 1 vinyloxy group or allenxyloxy group and are mixed with active H-containing polymer latexes to give the compns. Thus, emulsion polymerization of 98 parts Et acrylate and 2 parts methacrylic acid gave a 41.6%-solid latex, 18.4 parts (as solid) of which was blended with 6 parts a dispersion containing 1,4-diallenxyloxybenzene 6.7, H₂O 54, PhMe 35.3, Na dodecylbenzenesulfonate 2, and BuOH 2%, cast on a glass plate, left at 20° for 48 h, and treated at 130° for 20 min to give a film showing THF-soluble fraction 12%, tensile strength 45 kg/cm², elongation 320%, and no HCHO.

IC ICM C08K005-06

ICS C08L101-02

CC 37-6 (Plastics Manufacture and Processing)

ST allenxyloxybenzene crosslinking acrylic latex; vinyloxy compd crosslinking acrylic latex

IT Crosslinking agents

(allenxyloxy or vinyloxy compds.; crosslinking agents and water-based polymer compns. for formaldehyde-free products)

IT 167307-63-3P 167307-64-4P 167307-65-5P

167307-66-6P

RL: IMF (Industrial manufacture); PRP (Properties); **PREP** (Preparation)

(crosslinking agents and water-based polymer compns. for formaldehyde-free products)

IT 126014-91-3 126014-98-0 167307-62-2

RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)

(crosslinking agents; crosslinking agents and water-based polymer compns. for formaldehyde-free products)

IT 167307-63-3P 167307-64-4P 167307-65-5P

167307-66-6P

RL: IMF (Industrial manufacture); PRP (Properties); **PREP** (Preparation)

(crosslinking agents and water-based polymer compns. for formaldehyde-free products)

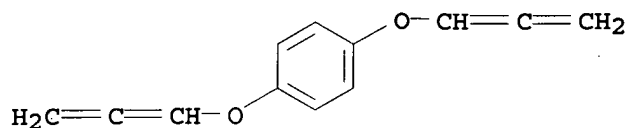
RN 167307-63-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,4-bis(1,2-propadienyloxy)benzene and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 126014-98-0

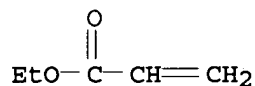
CMF C12 H10 O2



CM 2

CRN 140-88-5

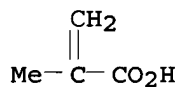
CMF C5 H8 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



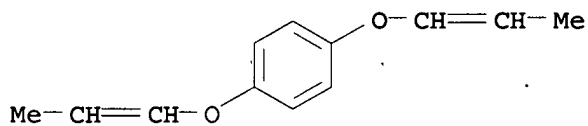
RN 167307-64-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,4-bis(1-propenyloxy)benzene and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 167307-62-2

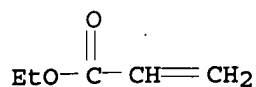
CMF C12 H14 O2



CM 2

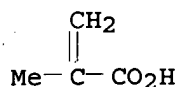
CRN 140-88-5

CMF C5 H8 O2



CM 3

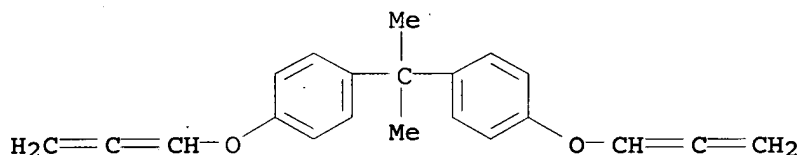
CRN 79-41-4
CMF C4 H6 O2



RN 167307-65-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and
1,1'-(1-methylethylidene)bis[4-(1,2-propadienyloxy)benzene] (9CI) (CA
INDEX NAME)

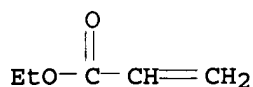
CM 1

CRN 126014-91-3
CMF C21 H20 O2



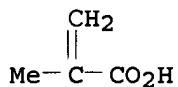
CM 2

CRN 140-88-5
CMF C5 H8 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2



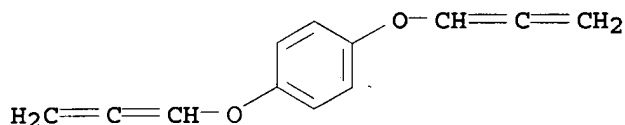
RN 167307-66-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,4-bis(1,2-propadienyloxy)benzene, 1,3-butadiene, methyl 2-methyl-2-propenoate, 2-propenamide and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 126014-98-0

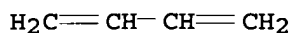
CMF C12 H10 O2



CM 2

CRN 106-99-0

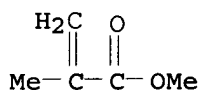
CMF C4 H6



CM . 3

CRN 80-62-6

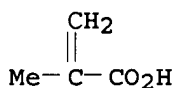
CMF C5 H8 O2



CM 4

CRN 79-41-4

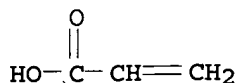
CMF C4 H6 O2



CM 5

CRN 79-10-7

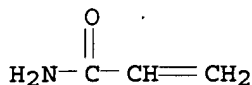
CMF C3 H4 O2



CM 6

CRN 79-06-1

CMF C3 H5 N O



L92 ANSWER 28 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:543514 HCAPLUS

DN 122:302874

TI Photographic recording material.

IN Helling, Guenter; Dewanckele, Jean-Marie

PA Agfa-Gevaert AG, Germany

SO Eur. Pat. Appl., 45 pp.

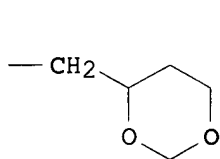
CODEN: EPXXDW

DT Patent

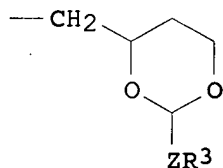
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 627656	A2	19941207	EP 1994-107919	19940524
	EP 627656	A3	19950322		
	EP 627656	B1	19990804		
	R: BE, DE, FR, GB, NL				
	DE 4318438	A1	19941208	DE 1993-4318438	19930603
	US 5455154	A	19951003	US 1994-247875	19940523
	JP 07013282	A	19950117	JP 1994-139556	19940531
PRAI	DE 1993-4318438	A	19930603		
GI					



I



II

AB The title material comprises, in ≥ 1 layer, a compound of the formula
 $-(\text{CH}_2-\text{CHOH})_k-(\text{M})_p-(\text{M}_1(\text{Z}-\text{NHR}_1))_m-(\text{M}_2)_j-$ [$k = 50-99$; $p = 0-49$; $m = 1-40$; $j = 0-49$ weight%; $\text{M} = \text{monomer}$; $\text{M}_1 = -\text{CH}_2-\text{CR}_2-$; I ; $\text{M}_2 = \text{II}$; $\text{R}_1, \text{R}_2 = \text{H, alkyl}$; $\text{R}_3 = \text{acid group}$; $\text{Z} = \text{bond, linking group}$] in an amount $\geq 10 \text{ mg.m}^2$. The material provides improved moisture resistance and storage stability.

IC ICM G03C001-053

ICS G03C001-30

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photog material moisture resistance storage stability
 IT Vinyl acetal polymers
 RL: DEV (Device component use); USES (Uses)
 (aminoacetals, moisture resistance photog. material)
 IT Vinyl acetal polymers
 RL: DEV (Device component use); USES (Uses)
 (benzals, moisture resistance photog. material)
 IT Photographic paper
 (color, moisture resistance layer)
 IT 4744-12-1D, 2-Aminopropionaldehyde, cyclic acetals with vinyl
 alc. polymer derivs. 5735-66-0D, 3-Oxo-Alanine, cyclic acetals
 with vinyl alc. polymer derivs. 6542-88-7D, Aminoacetaldehyde,
 cyclic acetals with vinyl alc. polymer derivs. 25213-24-5D,
 cyclic acetals with aminoacetaldehyde and
 3-oxo-alanine 30500-87-9D, cyclic acetals with
 aminoacetaldehyde 31134-93-7D, cyclic acetals
 with 2-aminopropionaldehyde
 RL: DEV (Device component use); USES (Uses)
 (moisture resistance photog. material)
 IT 31134-93-7D, cyclic acetals with 2-
 aminopropionaldehyde
 RL: DEV (Device component use); USES (Uses)
 (moisture resistance photog. material)
 RN 31134-93-7 HCAPLUS
 CN 2-Butenoic acid, polymer with ethenol (9CI) (CA INDEX NAME)
 CM 1
 CRN 3724-65-0
 CMF C4 H6 O2

Me-CH=CH-CO₂H

CM 2
 CRN 557-75-5
 CMF C2 H4 O

H₂C=CH-OH

L92 ANSWER 29 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1995:341001 HCAPLUS
 DN 122:142039
 TI Cosmetic composition containing a pseudo-latex film-forming
 polymer
 IN Mougins, Nathalie; Mondet, Jean; Guelton, Monique; Piot, Bertrand; Dupuis,
 Christine; Cauwet, Danielle
 PA Oreal S. A., Fr.
 SO Eur. Pat. Appl., 21 pp.
 CODEN: EPXXDW
 DT Patent
 LA French
 FAN.CNT 1
 PATENT NO. KIND DATE APPLICATION NO. DATE

PI	EP 628304	A1	19941214	EP 1994-401255	19940607
	EP 628304	B1	19981111		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
	FR 2706126	A1	19941216	FR 1993-6827	19930608
	FR 2706126	B1	19950721		
	CA 2125361	A1	19941209	CA 1994-2125361	19940607
	AT 173156	T	19981115	AT 1994-401255	19940607
	ES 2126078	T3	19990316	ES 1994-401255	19940607
	JP 07048231	A	19950221	JP 1994-126403	19940608
	US 5753215	A	19980519	US 1996-613604	19960311
PRAI	FR 1993-6827	A	19930608		
	US 1994-257624	B1	19940608		
AB	Cosmetic compns. containing a pseudo-latex film-forming polymer that is not easily washed out with water or shampoo is claimed. A hair lotion contained crotonic acid-vinyl acetate-vinyl tert-butyl-4-benzoate which was neutralized with L-lysine (preparation given) 20, perfumes, colors, preservatives q.s. and water q.s. 100g.				
IC	ICM A61K007-48				
	ICS A61K007-06				
CC	62-4 (Essential Oils and Cosmetics)				
	Section cross-reference(s): 35				
ST	cosmetic pseudo latex film forming polymer; crotonic acid vinyl benzoate copolymer cosmetic; vinyl acetate crotonic acid copolymer cosmetic				
IT	Shampoos				
	Sunscreens				
	(cosmetic composition containing a pseudo-latex film-forming polymer)				
IT	Cosmetics				
	Hair preparations				
	(gels, cosmetic composition containing a pseudo-latex film-forming polymer)				
IT	Cosmetics				
	Hair preparations				
	(lotions, cosmetic composition containing a pseudo-latex film-forming polymer)				
IT	Cosmetics				
	(mascaras, cosmetic composition containing a pseudo-latex film-forming polymer)				
IT	Deodorants				
	(sprays, cosmetic composition containing a pseudo-latex film-forming polymer)				
IT	97560-24-2, Neocryl xk51				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(cosmetic composition containing a pseudo-latex film-forming polymer)				
IT	25609-89-6P, Crotonic acid-vinyl acetate copolymer 26062-56-6P				
	58748-38-2P, Crotonic acid-vinyl acetate-vinyl neodecanoate copolymer				
	67016-70-0P, Amphomer lv71 68134-63-4P 149698-09-9P				
	160928-66-5P 160928-67-6P 160929-52-2P 160929-53-3P 161026-55-7P				
	RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)				
	(cosmetic composition containing a pseudo-latex film-forming polymer)				
IT	56-87-1, L-Lysine, reactions 56-89-3, Cystine, reactions 74-79-3, L-Arginine, reactions				
	RL: RCT (Reactant); RACT (Reactant or reagent)				
	(cosmetic composition containing a pseudo-latex film-forming polymer)				
IT	68134-63-4P				
	RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)				

(cosmetic composition containing a pseudo-latex film-forming polymer).

RN 68134-63-4 HCAPLUS

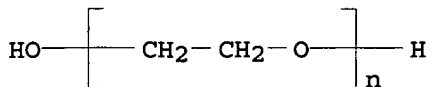
CN 2-Butenoic acid, polymer with ethenyl acetate and α -hydro- ω -hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 25322-68-3

CMF (C2 H4 O)_n H2 O

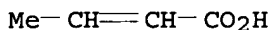
CCI PMS



CM 2

CRN 3724-65-0

CMF C4 H6 O2



CM 3

CRN 108-05-4

CMF C4 H6 O2



L92 ANSWER 30 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:331344 HCAPLUS

DN 122:292831

TI Pressure-sensitive adhesive compositions including ultraviolet-absorbing components

IN Akata, Atsuo; Daimon, Emiko; Hama, Juji

PA Otsuka Kagaku Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06299132	A	19941025	JP 1993-92934	19930420
PRAI	JP 1993-92934		19930420		

AB Title light-resistant compns., showing storage-stable pressure sensitivity and prevention of UV permeation, contain polymers including UV-absorbing organic group-substituted monomers. Thus, 20 g 2-[2'-hydroxy-5'-(methacryloyloxyethyl)phenyl]benzotriazole and 80 g Me methacrylate were treated in the presence of AIBN in THF under N at 70° for 3 h then the resulted copolymer dissolved in toluene was blended with

28:45:15:5.2:1.6:4.0:0.3 2-ethylhexyl acrylate-Bu acrylate-vinyl acetate-styrene-Me methacrylate-acrylic acid-methacrylic acid-2-hydroxyethyl methacrylate copolymer solution to give 43%-solid pressure-sensitive adhesive resin solution, which was mixed with Coronate L, applied onto a separator, dried at 100° for 1 min, transferred to an Aflon COP transparent film, aged at 20° for 2 wk, and laminated with a poly(Me methacrylate) plate to give a test piece showing retention of adhesion after 1500-h exposure to sunshine weather-O-meter.

IC ICM C09J133-14

ICS C09K003-00

CC 38-3 (Plastics Fabrication and Uses)

ST pressure sensitive adhesive polymer compn; UV absorbing group monomer copolymer; storage stability pressure sensitive adhesive; benzotriazole substituted polymer adhesive; acrylic resin pressure sensitive adhesive

IT Adhesives

(storage-stable pressure-sensitive adhesives containing UV-absorbing group-substituted polymers)

IT Urethane polymers, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic, pressure-sensitive acrylic resin adhesives containing UV-absorbing group-substituted polymers)

IT 25189-68-8P 163264-32-2P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(pressure-sensitive acrylic resin adhesives containing UV-absorbing group-substituted polymers)

IT 163264-33-3P 163264-34-4P 163264-35-5P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pressure-sensitive acrylic resin adhesives containing UV-absorbing group-substituted polymers)

IT 153175-43-0

RL: MOA (Modifier or additive use); USES (Uses)

(pressure-sensitive acrylic resin adhesives containing UV-absorbing group-substituted polymers)

IT 163264-35-5P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pressure-sensitive acrylic resin adhesives containing UV-absorbing group-substituted polymers)

RN 163264-35-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-(4-benzoyl-3-hydroxyphenoxy)ethyl 2-methyl-2-propenoate, butyl 2-propenoate, Coronate L, ethenyl acetate, ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 39278-79-0

CMF Unspecified

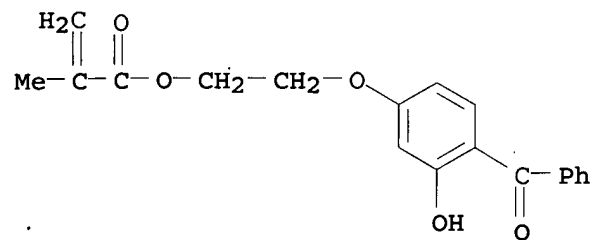
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 16613-04-0

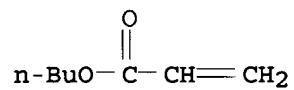
CMF C19 H18 O5



CM 3

CRN 141-32-2

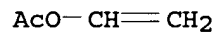
CMF C7 H12 O2



CM 4

CRN 108-05-4

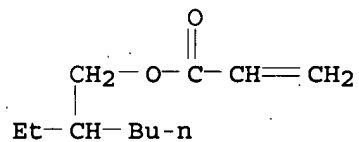
CMF C4 H6 O2



CM 5

CRN 103-11-7

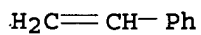
CMF C11 H20 O2



CM 6

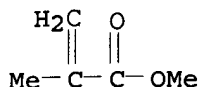
CRN 100-42-5

CMF C8 H8



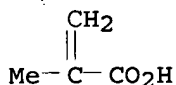
CM 7

CRN 80-62-6
CMF C5 H8 O2



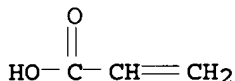
CM 8

CRN 79-41-4
CMF C4 H6 O2



CM 9

CRN 79-10-7
CMF C3 H4 O2



L92 ANSWER 31 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1994:711847 HCAPLUS

DN 121:311847

TI Electrostatographic liquid developer containing dispersed resin grains

IN Kato, Eiichi

PA Fuji Photo Film Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 60 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05158287	A	19930625	JP 1991-347633	19911204
	US 5334475	A	19940802	US 1992-982990	19921130
PRAI	JP 1991-339487	A	19911129		
	JP 1991-347633	A	19911204		

AB In the title developer in which at least resin grains are dispersed in a nonaq. solvent having an elec. resistivity >109 Ω-cm and a dielec. constant <3.5, the dispersed resin grains are polymer resin grains prepared by polymerization of a solution containing ≥1 kind(s) of monofunctional monomers

(A) being soluble in the nonaq. solvent but insol. after polymerization, ≥1

kind(s) of the following monomers (C) containing a specific substituent(s) and copolymerizable with the monomer(s) (A), ≥ 1 kind(s) of polyfunctional monomers (D) having >2 polymerizable functional groups copolymerizable with the monomer(s) (A), and ≥ 1 kind(s) of dispersion-stabilizing resins comprising an AB block copolymer composed of a block A containing at least the polymer component $[-CHb_1-C(-X_1-Y_1)b_2-]$ [$X_1 = CO_2, OCO, (CH_2)_yCO_2, (CH_2)_yOCO, O; y = 1-3; Y_1 = C_{>10}$ aliphatic group; $b_1, b_2 = H, halo, CN, hydrocarbon$ group, etc.] and a block B comprising a polymer component containing ≥ 1 kind(s) of polar groups selected from $CO_2H, SO_3H, OH, formyl, amino, phosphono, cyclic$ acid anhydride-containing groups, etc., and/or a polymer component corresponding to the monofunctional monomer (A), having a weight average mol. weight $2 \times 10^4 - 5 \times 10^5$, and being soluble to

the nonaq. solvent. The monomers (C) have the formula $C(a_1)H:C(a_2)-U_1-E_1$ { $E_1 = C_{>8}$ aliphatic group; substituent selected from $(-A_1-B_1)_m-(-A_2-B_2)_n-R_{21}$ [$R_{21} = H, C_{1-18}$ aliphatic group; $B_1, B_2 = O, S, CO, CO_2, SO_2$, etc.; $A_1, A_2 = (sub)C_{1-18}$ hydrocarbon group, etc.; $m, n = 0-4$, they are not 0 simultaneously]; $U_1 = CO_2, CONH, OCO, O$, etc.; $a_1, a_2 = H, alkyl$, etc.}. The liquid developer shows superior dispersion stability, redispersion property, and fixability and provides original plates for use as offset masters having remarkably improved durability.

IC ICM G03G009-13

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST electrostatog liq developer resin grain; latex grain electrostatog liq developer

IT Electrophotographic developers

(liquid; synthesis of A-B block copolymers as resin grains for dispersion in nonaq. solvent)

IT 126639-06-3P, Stearyl methacrylate-styrene block copolymer
 139357-82-7DP, Dodecyl methacrylate-triphenylmethyl methacrylate block copolymer, hydrolyzed, carboxy-terminated 139357-84-9DP, Benzyl methacrylate-octadecyl methacrylate block copolymer, hydrogenolyzed, carboxy-terminated 139357-85-0P, Acrylic acid-hexadecyl methacrylate block copolymer 150469-44-6DP, Dodecyl methacrylate-methyl acrylate-triphenylmethyl methacrylate block copolymer, hydrolyzed, carboxy-terminated 150469-45-7DP, Dodecyl acrylate-methyl acrylate-octadecyl methacrylate-trimethylsilyl methacrylate block copolymer, hydrolyzed, carboxy-terminated 150469-46-8DP, Dodecyl methacrylate-methyl methacrylate-4-vinylphenyloxytrimethylsilane block copolymer, hydrolyzed 150469-47-9P, Methacrylic acid-methyl acrylate-tridecyl methacrylate block copolymer 150469-48-0P
 150469-49-1P 150469-50-4P 150469-51-5P 150469-52-6P 150469-53-7P
 150469-54-8P 150469-55-9P 150469-57-1P 159172-01-7P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (ditto)

IT 126639-06-3DP, carboxyethyl-terminated 139406-18-1DP, carboxybutyl-terminated, 1-propenyl ester 139406-18-1DP, carboxybutyl-terminated, 2-propenyl ester 150321-84-9DP, carboxyethyl-terminated 150344-26-6DP, carboxybutyl-terminated, methacryloyloxyethyl amide 150407-66-2DP, carboxyethyl-terminated 150408-47-2DP, carboxybutyl-terminated, acryloyloxyethyl ester 150408-48-3DP, Dodecyl acrylate-methyl acrylate-octadecyl methacrylate block copolymer, hydroxyethyl-terminated, 3-butenic acid ester 150408-48-3DP, Dodecyl acrylate-methyl acrylate-octadecyl methacrylate block copolymer, hydroxyethyl-terminated, 4-vinylbenzenecarboxylic acid ester 150408-48-3DP, Dodecyl acrylate-methyl acrylate-octadecyl methacrylate block copolymer, hydroxyethyl-terminated, acrylate 150408-48-3DP, Dodecyl acrylate-methyl acrylate-octadecyl methacrylate

block copolymer, hydroxyethyl-terminated, crotonate 150408-48-3DP, hydroxyethyl-terminated, ester with 11-acrylamidoundecanoic acid 150408-48-3DP, hydroxyethyl-terminated, ester with monoacryloyloxypropyl glutarate 150408-48-3DP, hydroxyethyl-terminated, ester with monomethacryloyloxyethyl succinate 150408-48-3DP, Dodecyl acrylate-methyl acrylate-octadecyl methacrylate block copolymer, hydroxyethyl-terminated, methacrylate 150469-18-4DP, carboxybutyl-terminated, 2-propenyl ester 150469-19-5DP, carboxybutyl-terminated, 4-vinylphenylmethyl ester 150469-20-8DP, carboxybutyl-terminated, methacryloyloxyethyl ester 150469-21-9DP, carboxybutyl-terminated, 2-propenyl amide 150469-22-0DP, carboxyethyl-terminated 150469-58-2DP, 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxyloxyethyl-terminated 150469-58-2DP, Acrylic acid-methyl acrylate-tetradecyl methacrylate block copolymer, 2,3-dihydroxypropyl-terminated 150469-58-2DP, Acrylic acid-methyl acrylate-tetradecyl methacrylate block copolymer, 3,4-dicarboxybenzyl-terminated 150469-58-2DP, Acrylic acid-methyl acrylate-tetradecyl methacrylate block copolymer, carboxybutyl-terminated 150469-58-2DP, Acrylic acid-methyl acrylate-tetradecyl methacrylate block copolymer, carboxyethyl-terminated 150469-58-2DP, Acrylic acid-methyl acrylate-tetradecyl methacrylate block copolymer, hydroxyethyl-terminated 150469-58-2DP, monoethyl phosphatobutyl-terminated 150469-58-2DP, phosphatobutyl-terminated 150469-58-2DP, Acrylic acid-methyl acrylate-tetradecyl methacrylate block copolymer, sulfobutyl-terminated 150469-59-3DP, carboxyethyl-terminated 150469-60-6DP, carboxyethyl-terminated 150469-61-7DP, carboxyethyl-terminated 150469-62-8DP, carboxyethyl-terminated 150773-48-1DP, carboxyethyl-terminated 159172-02-8P, Acrylic acid-methyl acrylate-2-carboxyethyl-N, N-dimethyldithiocarbamate telomer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of dispersion-stabilizing resin by UV photoiniferter polymerization

for dispersion resin grains of liquid electrophotog. developer)
 IT 139357-82-7DP, Dodecyl methacrylate-triphenylmethyl methacrylate block copolymer, hydrolyzed 150429-36-0DP, hydrogenolyzed 150429-36-0P 150469-44-6DP, Dodecyl methacrylate-methyl acrylate-triphenylmethyl methacrylate block copolymer, hydrolyzed 150469-45-7DP, Dodecyl acrylate-methyl acrylate-octadecyl methacrylate-trimethylsilyl methacrylate block copolymer, hydrolyzed
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of dispersion-stabilizing resin for synthesis of dispersing resin grains of liquid electrophotog. developer)
 IT 139357-82-7DP, Dodecyl methacrylate-triphenylmethyl methacrylate block copolymer, hydrolyzed, carboxy-terminated, 2-hydroxyethyl methacrylate ester 139357-84-9DP, Benzyl methacrylate-octadecyl methacrylate block copolymer, hydrogenolyzed, carboxy-terminated, 2-hydroxyethyl methacrylate ester 139357-84-9DP, Dodecyl acrylate-methyl acrylate-octadecyl methacrylate-trimethylsilyl methacrylate block copolymer, hydrolyzed, carboxy-terminated, 2-hydroxyethyl methacrylate ester 150469-44-6DP, Dodecyl methacrylate-methyl acrylate-triphenylmethyl methacrylate block copolymer, hydrolyzed, carboxy-terminated, 2-hydroxyethyl methacrylate ester
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of dispersion-stabilizing resin for synthesis of dispersion resin grains of liquid electrophotog. developer)
 IT 159172-03-9DP, Divinyl adipate-dodecyl acrylate-methyl acrylate-methyl vinyl ether-octadecyl methacrylate-trimethylsilyl methacrylate-vinyl

acetate block copolymer, hydrolyzed 159172-04-0DP, Divinyl glutarate-docosyl methacrylate-dodecyl methacrylate-methyl acrylate-triphenylmethyl methacrylate block copolymer, hydrolyzed 159172-05-1DP, Benzyl methacrylate-divinyl glutarate-dodecyl methacrylate-octadecyl methacrylate block copolymer, hydrogenolyzed 159172-06-2DP, Divinylbenzene-dodecyl acrylate-methyl acrylate-octadecyl methacrylate-trimethylsilyl methacrylate block copolymer, hydrolyzed 159172-07-3DP, Allyl methacrylate-dodecyl methacrylate-methyl methacrylate-tridecyl methacrylate-4-vinylphenyloxytrimethylsilane block copolymer, hydrolyzed 159172-08-4P, Acrylic acid-divinyl adipate-hexadecyl methacrylate-octadecyl vinyl ether block copolymer 159172-09-5P, Divinyl adipate-methacrylic acid-methyl acrylate-octadecyl vinyl ketone-tridecyl methacrylate block copolymer 159172-10-8DP, Dodecyl methacrylate-octadecyl methacrylate-triphenylmethyl methacrylate-vinyl methacrylate block copolymer, hydrolyzed 159172-11-9DP, Ally crotonate-dodecyl acrylate-methyl acrylate-octadecyl crotonate-octadecyl methacrylate-trimethylsilyl methacrylate block copolymer, hydrolyzed 159172-12-0P 159172-13-1P 159172-14-2P 159172-16-4P 159172-17-5P, Acrylic acid-divinylbenzene-methyl acrylate-tetradecyl methacrylate-vinyl stearate block copolymer 159172-18-6P, Allyl stearate-methyl acrylate-octadecyl methacrylate-trivinylbenzene block copolymer 159172-20-0P 159172-21-1P, Eicosanyl methacrylate-methyl acrylate-octadecyl methacrylate-vinyl methacrylate block copolymer 159172-22-2P, Dodecyl acrylate-methyl acrylate-octadecyl methacrylate-trivinylbenzene block copolymer 159172-24-4P 159172-25-5P 159172-26-6P, Dodecyl acrylate-dodecyl methacrylate-methyl acrylate-octadecyl stearate-trimethylolpropane trimethacrylate block copolymer 159172-27-7P, Dodecyl acrylate-ethyl acrylate-ethylene glycol diacrylate-methyl acrylate-methyl methacrylate-octadecyl acrylate-octadecyl methacrylate block copolymer 159172-28-8DP, Dodecyl methacrylate-dodecyl acrylate-docosyl methacrylate-ethylene glycol diacrylate-methyl acrylate-methyl methacrylate-styrene-triphenylmethyl methacrylate block copolymer, hydrolyzed 159172-30-2P, Divinylbenzene-octadecyl vinyl ether-styrene-tridecyl methacrylate-vinyl acetate block copolymer 159172-31-3P, Eicosyl methacrylate-octadecyl methacrylate-styrene-trivinylbenzene-vinyltoluene block copolymer 159172-33-5P 159172-36-8P 159172-38-0P 159248-88-1P, Dodecyl acrylate-ethylene glycol diacrylate-methyl acrylate-methyl methacrylate-octadecyl methacrylate block copolymer 159290-25-2DP, hydrolyzed

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of latex for use in liquid electrophotog. developer)

IT 150469-59-3DP, carboxyethyl-terminated

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of dispersion-stabilizing resin by UV photoiniferter polymerization

for dispersion resin grains of liquid electrophotog. developer)

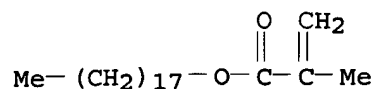
RN 150469-59-3 HCAPLUS

CN 2-Butenoic acid, polymer with ethenyl acetate and octadecyl 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 32360-05-7

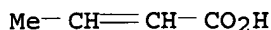
CMF C22 H42 O2



CM 2

CRN 3724-65-0

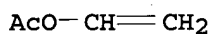
CMF C4 H6 O2



CM 3

CRN 108-05-4

CMF C4 H6 O2

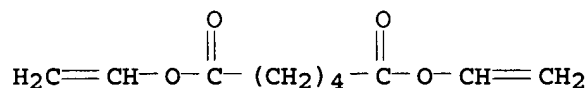


IT 159172-08-4P, Acrylic acid-divinyl adipate-hexadecyl methacrylate-octadecyl vinyl ether block copolymer 159172-09-5P, Divinyl adipate-methacrylic acid-methyl acrylate-octadecyl vinyl ketone-tridecyl methacrylate block copolymer 159172-17-5P, Acrylic acid-divinylbenzene-methyl acrylate-tetradecyl methacrylate-vinyl stearate block copolymer 159172-38-0P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of latex for use in liquid electrophotog. developer)
 RN 159172-08-4 HCAPLUS
 CN Hexanedioic acid, diethenyl ester, polymer with 1-(ethenyloxy)octadecane, hexadecyl 2-methyl-2-propenoate and 2-propenoic acid, block (9CI) (CA INDEX NAME)

CM 1

CRN 4074-90-2

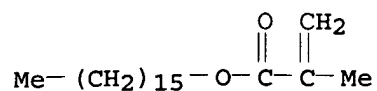
CMF C10 H14 O4



CM 2

CRN 2495-27-4

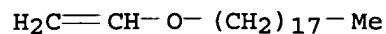
CMF C20 H38 O2



CM 3

CRN 930-02-9

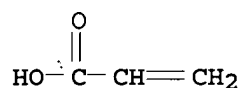
CMF C20 H40 O



CM 4

CRN 79-10-7

CMF C3 H4 O2



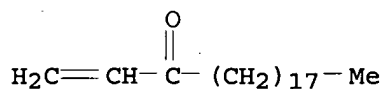
RN 159172-09-5 HCAPLUS

CN Hexanedioic acid, diethenyl ester, polymer with 1-heneicosen-3-one, methyl 2-propenoate, 2-methyl-2-propenoic acid and tridecyl 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 25147-63-1

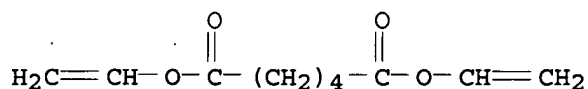
CMF C21 H40 O



CM 2

CRN 4074-90-2

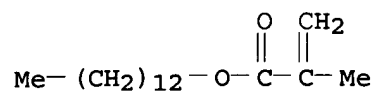
CMF C10 H14 O4



CM 3

CRN 2495-25-2

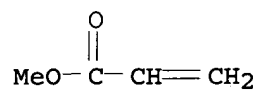
CMF C17 H32 O2



CM 4

CRN 96-33-3

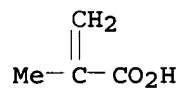
CMF C4 H6 O2



CM 5

CRN 79-41-4

CMF C4 H6 O2



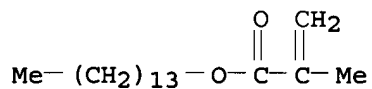
RN 159172-17-5 HCAPLUS

CN Octadecanoic acid, ethenyl ester, polymer with diethenylbenzene, methyl 2-propenoate, 2-propenoic acid and tetradecyl 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 2549-53-3

CMF C18 H34 O2

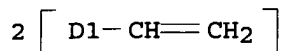


CM 2

CRN 1321-74-0

CMF C10 H10

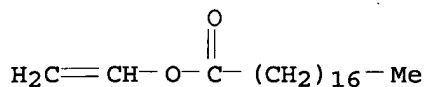
CCI IDS



CM 3

CRN 111-63-7

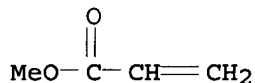
CMF C20 H38 O2



CM 4

CRN 96-33-3

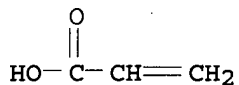
CMF C4 H6 O2



CM 5

CRN 79-10-7

CMF C3 H4 O2



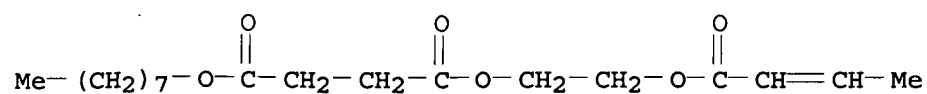
RN 159172-38-0 HCAPLUS

CN Butanedioic acid, octyl 2-[(1-oxo-2-butenyl)oxy]ethyl ester, polymer with 2-butenic acid, ethenyl acetate, 2-ethyl-2-[[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl bis(2-methyl-2-propenoate), hexadecyl 2-methyl-2-propenoate and methyl 2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 159172-37-9

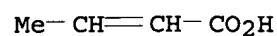
CMF C18 H30 O6



CM 2

CRN 3724-65-0

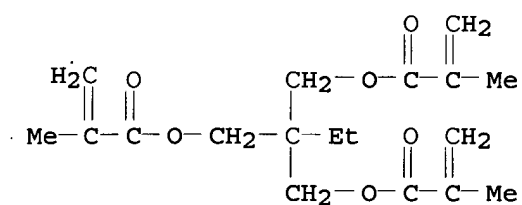
CMF C4 H6 O2



CM 3

CRN 3290-92-4

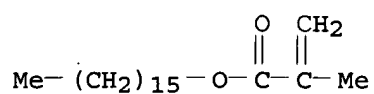
CMF C18 H26 O6



CM 4

CRN 2495-27-4

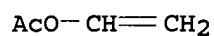
CMF C20 H38 O2



CM 5

CRN 108-05-4

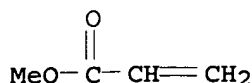
CMF C4 H6 O2



CM 6

CRN 96-33-3

CMF C4 H6 O2



L92 ANSWER 32 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:573520 HCAPLUS

DN 117:173520

TI Vinyl **acetal** resin for heat transfer layer and heat transfer ink ribbon with high storage stability

IN Otake, Hirohisa; Ozai, Satoshi; Nishijima, Akio

PA Denki Kagaku Kogyo K. K., Japan

SO Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 495439	A1	19920722	EP 1992-100466	19920113
	EP 495439	B1	19980513		
	R: DE, FR, GB				
	JP 04236205	A	19920825	JP 1991-14913	19910116
	JP 3065111	B2	20000712		
	US 5238996	A	19930824	US 1992-821173	<u>19920116</u>
	US 5268350	A	19931207	US 1993-29056	<u>19930310</u>
PRAI	JP 1991-14913	A	19910116		
	US 1992-821173	A3	19920116		
AB	The title printer ribbon comprises vinyl acetal resin of acetalation degree >87% and cis-trans vinyl acetal ratio 1-4, and optionally contain carboxy-modified poly(vinyl acetal) (I). Thus, a printer ribbon, prepared from base layer of a polyester film coated with a dye composition of a red dye 5, MEK 62, PhMe 30, and I (90.2% acetal , 8.5% vinyl alc., d.p. 2410, cis/trans 2.7, glass temperature 113°) 3 parts, showed storage stability 9 days at 40° and 80% relative humidity.				
IC	ICM B41M005-38				
CC	42-12 (Coatings, Inks, and Related Products)				
	Section cross-reference(s): 74				
ST	polyvinyl acetal binder printer ribbon				
IT	Vinyl acetal polymers				
	RL: RCT (Reactant); RACT (Reactant or reagent)				
	(binders, for heat-transfer ink ribbons with high storage stabilities)				
IT	Vinyl acetal polymers				
	RL: USES (Uses)				
	(acetal butyrals, carboxy-modified, binders, for heat transfer ink ribbons with high storage stabilities)				
IT	Printer ribbons				
	(thermal-transfer, binders for, vinyl acetal polymers as, with high storage stabilities)				
IT	79-10-7D, 2-Propenoic acid, poly(vinyl acetal) modified with, reactions 3052-50-4D, Maleic acid methyl ester, poly(vinyl acetal) modified with 24980-58-3D, saponified, reaction products with acetaldehyde				
	RL: RCT (Reactant); RACT (Reactant or reagent)				
	(binders, for heat-transfer ink ribbons with high storage stabilities)				
IT	24980-58-3D, saponified, reaction products with acetaldehyde				
	RL: RCT (Reactant); RACT (Reactant or reagent)				

(binders, for heat-transfer ink ribbons with high storage stabilities)
 RN 24980-58-3 HCAPLUS
 CN 2-Propenoic acid, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 108-05-4

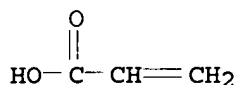
CMF C4 H6 O2



CM 2

CRN 79-10-7

CMF C3 H4 O2



L92 ANSWER 33 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1992:236391 HCAPLUS
 DN 116:236391
 TI Preparation of abrasion-resistant **polyacetal** graft copolymers
 IN Nagasaki, Kosuke; Matsuzaki, Kazuhiko; Hata, Tadashige
 PA Asahi Chemical Industry Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04007312	A	19920110	JP 1990-106357	19900424
PRAI	JP 1990-106357		19900424		

AB The title polymers (CF₂CX₁X₂)_n (X_{1,2} = H, F, CmFxHy, OCmFxHy; m = 1-5; x + y = 2m + 1; y = 0-2m; n = 1-1000) in the main chain and polyoxymethylene grafts, are prepared Thus, feeding 300 g/h CH₂O, into 1500 g PhMe solution containing 0.1 mmol/L tetrabutylammonium acetate and 6.2 mmol/L 20:1 C₂F₄-hydroxyethyl methacrylate copolymer, and polymerizing at 60° gave graft copolymers having tensile strength 690 kg/cm², and friction coefficient (20 kg/cm², 1.2-70 cm/s against **polyacetals**) 0.18.

IC ICM C08G002-38

ICS F16C033-20

CC 35-8 (Chemistry of Synthetic High Polymers)

ST formaldehyde tetrafluoroethylene graft copolymer; polyoxymethylene graft copolymer abrasion resistance; perfluoroalkyl polyoxymethylene graft copolymer prepn

IT Polymerization

(graft, of polyoxymethylenes onto perfluoroalkyl group-containing polymers, for improved abrasion resistance)

IT Polyoxymethylenes, preparation

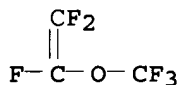
RL: PREP (Preparation)

(perfluoroalkyl group-containing, graft polymers, preparation of,

abrasion-resistant)
IT Fluoropolymers
RL: PREP (Preparation)
(polyoxymethylene-, perfluoroalkyl group-containing, graft polymers,
preparation
of, abrasion-resistant)
IT 141431-91-6P 141431-92-7P 141431-93-8P 141431-94-9P
141431-95-0P 141431-96-1P 141431-98-3P 141431-99-4P 141432-00-0P
141455-21-2P
RL: PREP (Preparation)
(preparation of, abrasion-resistant)
IT 141431-94-9P
RL: PREP (Preparation)
(preparation of, abrasion-resistant)
RN 141431-94-9 HCAPLUS
CN 2-Propenoic acid, polymer with formaldehyde and
trifluoro(trifluoromethoxy)ethene, graft (9CI) (CA INDEX NAME)

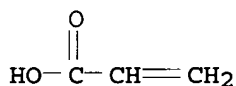
CM 1

CRN 1187-93-5
CMF C3 F6 O



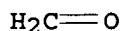
CM 2

CRN 79-10-7
CMF C3 H4 O2



CM 3

CRN 50-00-0
CMF C H2 O



L92 ANSWER 34 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1992:20745 HCAPLUS
DN 116:20745
TI Catalytic behavior of polymer-nickel complexes for the hydrogenation of
nitro compounds, aldehydes and ketones
AU Jiang, Weiguo; Huang, Weidong; Jin, Jian; Zong, Huijuan
CS Dep. Mater. Sci. Eng., Univ. Sci. Technol. China, Hefei, 230026, Peop.
Rep. China

SO Fenzi Cuihua (1991), 5(3), 241-7

CODEN: FECUEN; ISSN: 1001-3555

DT Journal

LA Chinese

AB Some crosslinking polymer ligands containing oxygen, nitrogen and sulfur atoms and their nickel (I) complexes have been prepared. These complexes were reduced with several kinds of reducing agents including sodium borohydride (NaBH₄) at 0 °C, mol. hydrogen at 150 °C and 6 MPa, lithium aluminum hydride (LiAlH₄) at 0 °C under nitrogen and formaldehyde in basic media. It has been found that the polymer-Ni (I) complexes were very difficult to be reduced by LiAlH₄ and formaldehyde and the complexes reduced with these reducing agents showed no activity for the hydrogenation of nitro compound. In contrast, the complexes after reduction

with

NaBH₄ or hydrogen exhibited relatively high activities and the former showed much higher activities than that of the latter. From the data of X-ray photoelectron spectrum, it can be seen that the Ni(I) of polymer-Ni (I) complexes was converted into nickel boride after reduction by NaBH₄. Also the complexes reduced by NaBH₄ have very high selectivities. It has been found that when the complexes were used to catalyze the hydrogenation of nitro compds., aromatic and aliphatic aldehydes and aromatic ketones, the high selectivity of the complexes turned these substances into corresponding amines and alcs. with no byproduct being detected in GLC anal.

CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

Section cross-reference(s): 67

ST nickel polymer supported hydrogenation catalyst

IT Hydrogenation catalysts

Polymer-supported reagents

(nickel-polymer complex, for nitro compds., aldehydes, and ketones)

IT 9003-05-8D, mercaptomethylated, silica-supported, nickel complexes

24980-59-4D, silica-supported, nickel complexes 25087-26-7D,
4-aminophenylamidated, silica-supported, nickel complexes 25232-41-1D,
nickel complexes 25300-64-5D, phenylamidated, silica supported, nickel
complexes

RL: CAT (Catalyst use); USES (Uses)

(catalyst, for hydrogenation of nitro compds. **aldehydes**, and
ketones)

IT 78-94-4, 2-Butenone, reactions 79-24-3, Nitroethane 88-72-2 98-86-2,
Acetophenone, reactions 98-95-3, Nitrobenzene, reactions 100-52-7,
Benzaldehyde, reactions 108-94-1, Cyclohexanone, reactions 121-86-8,
2-Chloro-4-nitrotoluene 123-72-8, Butylaldehyde 4170-30-3, 2-Butenal
RL: RCT (Reactant); RACT (Reactant or reagent)

(catalytic hydrogenation of, nickel-polymer complex catalyst for)

IT 7440-02-0, Nickel, uses

RL: USES (Uses)

(polymer-supported, hydrogenation catalyst, for nitro compds.,
aldehydes, and ketones)

IT 24980-59-4D, silica-supported, nickel complexes

RL: CAT (Catalyst use); USES (Uses)

(catalyst, for hydrogenation of nitro compds. **aldehydes**, and
ketones)

RN 24980-59-4 HCAPLUS

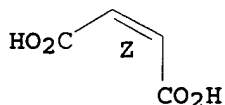
CN 2-Butenedioic acid (2Z)-, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



CM 2

CRN 108-05-4

CMF C4 H6 O2

AcO-CH=CH₂

L92 ANSWER 35 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1987:68421 HCAPLUS

DN 106:68421

TI Polymeric porous materials

IN Sato, Toshiaki; Yamauchi, Junnosuke; Okaya, Takuji

PA Kuraray Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61130349	A	19860618	JP 1984-253821	19841129
PRAI	JP 1984-253821		19841129		

AB Porous materials with good touch, softness, and resilience when wet and good wettability and softness when dry, useful as sponges, cosmetic puffs, etc., are prepared by treating water-soluble or water-dispersible block (co)polymers of vinyl alc. polymers with aldehydes in the presence of acids. Thus, 200 mL water solution containing potato starch 30 g was added to

a 500 mL water-solution containing vinyl alc. (polymerization degree 575, saponification degree

98.7 mol%)-acrylic compound block copolymer 60 g, mixed at 70° for 10 min, cooled at 50°, mixed with 100 mL 37% formaldehyde, 100 mL 50% H₂SO₄, and water to make 1 L at 45°, cast at 70° for 12 h, and washed with warm water to give test pieces, which exhibited water-absorption time 7 s (capillary action 3 cm up a 2 cm + 2 cm + 10 cm sample held vertically in water), good softness (when wet) and moderate softness (when dried), water-holding ability 95%, and acetalization degree 65, vs. 36, good, poor, 49, and 65, resp., for test pieces prepared from vinyl alc. polymer (polymerization degree 1700, saponification degree 88 mol.%) instead of the block copolymer.

IC ICM C08J009-26

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 35

ST vinyl formal block copolymer porous; acetalization vinyl alc block copolymer; wettability softness acrylic polyvinyl formal; sponge substitute vinyl formal block copolymer

IT Sponge substitutes

(acrylic-vinyl formal block copolymers, with good wettability and

softness and touch)

IT Vinyl acetal polymers
 RL: USES (Uses)
 (formals, copolymers with acrylic compds., block, with good wettability and softness and touch, for sponges)

IT 106608-37-1D, acetalization products with formaldehyde
 106608-38-2D, acetalization products with formaldehyde 106608-39-3D, acetalization products with formaldehyde 106608-40-6D, acetalization products with formaldehyde 106608-41-7D, acetalization products with formaldehyde 106608-42-8D, acetalization products with formaldehyde 106608-43-9D, acetalization products with formaldehyde 106608-44-0D, acetalization products with formaldehyde

RL: USES (Uses)
 (porous, with good wettability and softness and touch)

IT 50-00-0D, reaction products with acrylic-vinyl alc. block copolymers
 RL: USES (Uses)
 (porous, with good wettability softness and touch)

IT 106608-38-2D, acetalization products with formaldehyde 106608-39-3D, acetalization products with formaldehyde 106608-40-6D, acetalization products with formaldehyde

RL: USES (Uses)
 (porous, with good wettability and softness and touch)

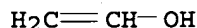
RN 106608-38-2 HCAPLUS

CN 2-Propenoic acid, polymer with ethenol, block (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5

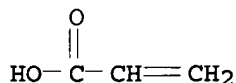
CMF C2 H4 O



CM 2

CRN 79-10-7

CMF C3 H4 O2



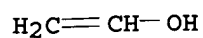
RN 106608-39-3 HCAPLUS

CN 2-Propenoic acid, polymer with ethenol and 2-propenamide, block (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5

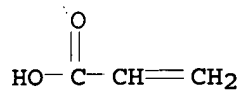
CMF C2 H4 O



CM 2

CRN 79-10-7

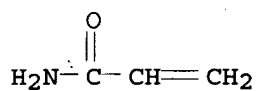
CMF C3 H4 O2



CM 3

CRN 79-06-1

CMF C3 H5 N O



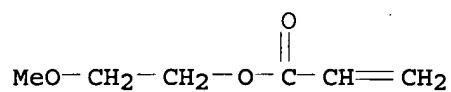
RN 106608-40-6 HCAPLUS

CN 2-Propenoic acid, polymer with ethenol and 2-methoxyethyl 2-propenoate,
block (9CI) (CA INDEX NAME)

CM 1

CRN 3121-61-7

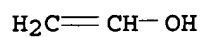
CMF C6 H10 O3



CM 2

CRN 557-75-5

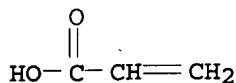
CMF C2 H4 O



CM 3

CRN 79-10-7

CMF C3 H4 O2



L92 ANSWER 36 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1986:208257 HCAPLUS

DN 104:208257

TI Water-soluble resins

IN Taniuchi, Akira; Watanabe, Hiroshi; Kato, Hirokazu

PA Daiichi Kogyo Seiyaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60226508	A	19851111	JP 1984-82559	19840423
	JP 05021122	B	19930323		
PRAI	JP 1984-82559		19840423		

AB Flexible and strong water-soluble resins with excellent film forming properties are prepared by polymerization of 1-100% (based on PVA) α,β -unsatd. carboxylic acids and optionally 1-20% ester derivative in aqueous solution of PVA in the presence of polymerization catalysts followed by

acetalization by aldehydes. Thus, 18 parts acrylic acid and 2 parts methacrylic acid were polymerized in aqueous Gohsenol GL-05 (PVA) in the presence of (NH₄)₂S₂O₈, then treated with 7.1 parts Bu aldehyde at 40-50° for 2 h, and neutralized with monoisopropanolamine to give water-soluble resin (I, concentration 28%, viscosity 25,000 cPs). A

0.1-mm-thick

film of I showed tensile strength (JIS K-6301) 130 kgf/cm², and elongation 120%, vs. 120 and 14, resp., for Gohsenol GL-03 only.

IC ICM C08F008-28

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 35, 38

ST water sol butyral graft copolymer; PVA graft unsatd carboxylic acid; acetalization polyvinyl alc graft copolymer; acrylic acid graft PVA; methacrylic acid graft PVA

IT Vinyl acetal polymers

RL: USES (Uses)

(butyrals, unsatd. carboxylic acid-grafted, water-soluble, for flexible and strong films)

IT 101052-41-9D, reaction products with Bu aldehyde, monoisopropanolamine salt 102328-56-3D, reaction product with Bu aldehyde, ammonium salt

RL: USES (Uses)

(graft, water-soluble, for flexible and strong films)

IT 101052-41-9D, reaction products with Bu aldehyde, monoisopropanolamine salt 102328-56-3D, reaction product with Bu aldehyde, ammonium salt

RL: USES (Uses)

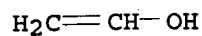
(graft, water-soluble, for flexible and strong films)

RN 101052-41-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenol and 2-propenoic acid (9CI) (CA INDEX NAME)

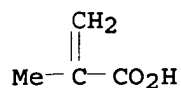
CM 1

CRN 557-75-5
CMF C2 H4 O



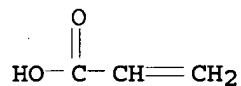
CM 2

CRN 79-41-4
CMF C4 H6 O2



CM 3

CRN 79-10-7
CMF C3 H4 O2



RN 102328-56-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenol and
2-propenoic acid (9CI) (CA INDEX NAME)

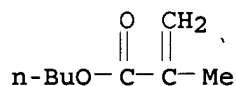
CM 1

CRN 557-75-5
CMF C2 H4 O



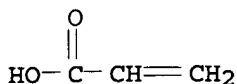
CM 2

CRN 97-88-1
CMF C8 H14 O2



CM 3

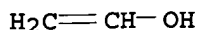
CRN 79-10-7
CMF C3 H4 O2



L92 ANSWER 37 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1985:47206 HCAPLUS
DN 102:47206
TI **Acetalation** of poly(vinyl alcohol) fibers by glutaraldehyde
AU Lobova, A. B.; Goncharova, N. A.; Shamolina, I. I.; Vol'f, L. A.
CS USSR
SO Khimicheskije Volokna (1984), (6), 39-40 ✕
CODEN: KVLKA4; ISSN: 0023-1118
DT Journal
LA Russian
AB The degree of **acetalation** of vinal fibers with glutaraldehyde
(I) varied from 2.0 to 36.2 mol%, depending on the concentration (1.5-5.0%) of
I, bath temperature (20-80°), reaction time (20-120 min), and concentration
(0.25-5%) of HCl. Fibers having maximum degree of **acetalation** and
min. 0.5% shrinkage in boiling water were obtained in a bath containing 0.25%
HCl and 5% I, at 60° in 120 min. These fibers, when grafted with
acrylic acid, gave cation exchangers having static exchange capacity 4.4
mmol NaOH/g.
CC 40-2 (Textiles)
Section cross-reference(s): 38
ST **acetalation** vinal fiber glutaraldehyde; cation exchanger vinal
fiber manuf
IT Vinal fibers
RL: RCT (Reactant); RACT (Reactant or reagent)
(**acetalation** of, with glutaraldehyde, in cation exchanger
manufacture)
IT Cation exchangers
(fibrous, acrylic acid-vinyl alc. polymers, graft, manufacture of,
acetalation with glutaraldehyde in)
IT 7647-01-0, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for **acetalation** of vinal fibers with
glutaraldehyde, in cation exchanger manufacture)
IT 26299-60-5P
RL: PREP (Preparation)
(graft, fiber, cation exchangers, manufacture of, **acetalation** with
glutaraldehyde in)
IT 111-30-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with vinal fibers, in cation exchanger manufacture)
IT 26299-60-5P
RL: PREP (Preparation)
(graft, fiber, cation exchangers, manufacture of, **acetalation** with
glutaraldehyde in)
RN 26299-60-5 HCAPLUS
CN 2-Propenoic acid, polymer with ethenol (9CI) (CA INDEX NAME)

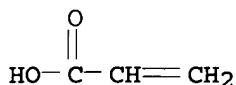
CM 1

CRN 557-75-5
CMF C2 H4 O



CM 2

CRN 79-10-7
CMF C3 H4 O2



L92 ANSWER 38 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1981:498608 HCAPLUS
DN 95:98608
TI Ethylene polymer powders
IN Hobes, John; Payer, Wolfgang; Deymann, Detlef
PA Ruhrchemie A.-G., Fed. Rep. Ger.
SO Ger. Offen., 18 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2951122	A1	19810709	DE 1979-2951122	19791219
	DE 2951122	C2	19821209		
	ES 497287	A1	19811016	ES 1980-497287	19801128
	NL 8006702	A	19810716	NL 1980-6702	19801210
	NL 183142	B	19880301		
	NL 183142	C	19880801		
	SE 8008718	A	19810620	SE 1980-8718	19801211
	SE 453919	B	19880314		
	SE 453919	C	19880623		
	JP 57119927	A	19820726	JP 1980-173876	19801211
	JP 58030332	B	19830628		
	BE 886647	A1	19810612	BE 1980-203164	19801212
	FR 2471998	A1	19810626	FR 1980-26478	19801212
	FR 2471998	B1	19850906		
	GB 2065667	A	19810701	GB 1980-40365	19801217
	GB 2065667	B	19840229		
	CA 1185746	A1	19850416	CA 1980-366981	19801217
	US 4446311	A	19840501	US 1982-388572	19820614
PRAI	DE 1979-2951122	A	19791219		
	US 1980-216224	A1	19801215		

AB C2H4 polymers with particle size <200 μ are prepared by stirring the polymers at temps. above their softening points in C3-10 alkanones and then cooling them. Thus, stirring 100 g powdered, high-pressure polyethylene [9002-88-4] [melt index (190°, 2 Kg) 0.4 g/10 min] in 800 mL iso-BuCOME [108-10-1] and 200 mL aliphatic hydrocarbon (b. 140-60°) at 110° and 600 rpm for 30 min and cooling to 30° gives a product with melt index 0.35 g/10 min and particle size <32 μ 6.4,

32-45 μ 11.2, 45-63 μ 16.3, 63-100 μ 22.5, 100-60 μ 35.0, and
>160 μ 8.6%, compared with 9.8, 23.5, 8.2, 5.4, <1, and 52.1%, resp.,
when stirred in xylene at 110-20°.

IC C08J003-14

CC 35-3 (Synthetic High Polymers)

ST powder ethylene polymer prepn; polyethylene powder manuf; ketone
polyethylene size redn; methylpentanone polyethylene size redn

IT Size reduction

(of ethylene polymers, by stirring with hot ketones)

IT 78-93-3, uses and miscellaneous 108-10-1

RL: USES (Uses)

(ethylene polymer powder manufacture in presence of)

IT 9002-88-4P 25266-67-5P 55972-65-1P 78884-57-8P

RL: PREP (Preparation)

(powder, manufacture of, by heating in ketones)

IT 78884-57-8P

RL: PREP (Preparation)

(powder, manufacture of, by heating in ketones)

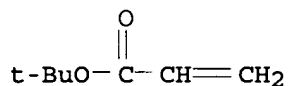
RN 78884-57-8 HCAPLUS

CN 2-Propenoic acid, polymer with 1,1-dimethylethyl 2-propenoate, ethene and
ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 1663-39-4

CMF C7 H12 O2



CM 2

CRN 108-05-4

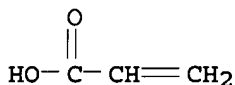
CMF C4 H6 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



CM 4

CRN 74-85-1

CMF C2 H4

$H_2C=CH_2$

L92 ANSWER 39 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1980:533312 HCAPLUS

DN 93:133312

TI Cation-exchange membranes

PA Agency of Industrial Sciences and Technology, Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 55062929	A	19800512	JP 1978-137145	19781106
	JP 57058373	B	19821209		
	US 4298698	A	19811103	US 1979-89402	19791030
PRAI	JP 1978-137145	A	19781106		

AB Water-soluble polymer films containing alkali or alkaline earth metal salts of methacrylic acid are irradiated with UV or γ ray or heated in the presence of radical initiators to give ion-exchange membranes. Thus, 2.25 g poly(vinyl alc.) and 2.25 g Na methacrylate in 75 g H₂O was cast to give a 0.048-mm film. The film was γ -irradiated in vacuo at 50° and 6 + 104 R/h for 17 h. The film was treated with HCHO-H₂SO₄ solution and neutralized with NaOH to give a membrane. When the membrane was immersed 10 min in a 1% aqueous AgNO₃ solution,

88.7% Na was exchanged with Ag.

IC C08J005-22; B01J047-12; C08J007-10

CC 36-3 (Plastics Manufacture and Processing)

ST cation exchange membrane; vinyl alc graft copolymer; sodium methacrylate graft copolymer; silver ion exchange membrane

IT Cation exchangers

(membranes, sodium methacrylate-grafted poly(vinyl alc.) reaction products with formaldehyde)

IT 50-00-0DP, reaction products with sodium methacrylate-vinyl alc. copolymer 50474-87-8DP, reaction products with formaldehyde

RL: PREP (Preparation)

(graft, cation exchange membranes, manufacture of)

IT 50474-87-8DP, reaction products with formaldehyde

RL: PREP (Preparation)

(graft, cation exchange membranes, manufacture of)

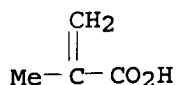
RN 50474-87-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, sodium salt, polymer with ethenol (9CI) (CA INDEX NAME)

CM 1

CRN 5536-61-8

CMF C4 H6 O2 . Na

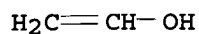


● Na

CM 2

CRN 557-75-5

CMF C2 H4 O



L92 ANSWER 40 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1976:502315 HCAPLUS

DN 85:102315

TI Subbing layer for photographic film

IN Cook, Robert Stanley; Wright, Peter John

PA Ciba-Geigy A.-G., Switz.

SO Ger. Offen., 17 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2529566	A1	19760115	DE 1975-2529566	19750702
	GB 1463700	A	19770202	GB 1974-29664	19740704
	FR 2277361	A1	19760130	FR 1975-20354	19750627
	CH 596579	A5	19780315	CH 1975-8597	19750702
	BE 830949	A1	19760105	BE 1975-157932	19750703
PRAI	GB 1974-29664	A	19740704		

AB Adhesion-improving subbing layers for use on biaxially oriented linear hydrophobic polyester photog. film supports are composed of a copolymer containing vinylidene chloride, an alkyl acrylate or methacrylate, a polymerizable acid, such as acrylic or itaconic acid, and a vinyl compound, such as vinyl cyanoacetate, acetoxymethyl vinyl ketone, or vinyl benzoylacetate. Thus, a hydrophobic, biaxially oriented poly(ethylene terephthalate) support was coated with a solution containing p-chloro-m-cresol

2 g and MeOH 100 ml, dried, coated with a solution containing acrylic acid-Me acrylate-vinyl cyanoacetate-vinylidene chloride polymer 2 g and MeCOEt 100 ml, dried, coated with a solution containing ash-free gelatin 1.68, HOAc 1.20

g, MeOH 90.7, water 6, Et lactate 1.09, and 30% aqueous HCHO 0.7 ml, dried, and coated with a gelatin-Ag halide emulsion layer. The layers were shown to adhere well to each other and thus there was no danger of layer separation or curling during processing.

IC G03C

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)

ST vinyl polymer subbing layer photog

IT Polyesters, uses and miscellaneous

RL: USES (Uses)

(photog. film supports from, vinyl polymer subbing layers for)

IT Photographic films

(subbing layers for, adhesion-improving, containing vinyl polymers)

IT 25038-59-9, uses and miscellaneous

RL: USES (Uses)

(photog. film supports from, vinyl polymer subbing layers for)

IT 60233-23-0 60486-00-2

RL: USES (Uses)

(photog. subbing layers from, for improved emulsion layer adhesion)

IT 60486-02-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT 60486-02-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

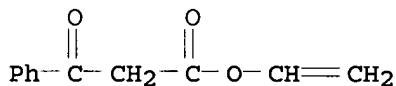
RN 60486-02-4 HCAPLUS

CN Butanedioic acid, methylene-, polymer with 1,1-dichloroethene, ethenyl
β-oxobenzenepropanoate and methyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 60486-01-3

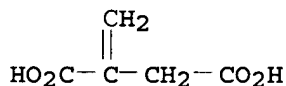
CMF C11 H10 O3



CM 2

CRN 97-65-4

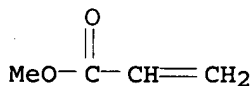
CMF C5 H6 O4



CM 3

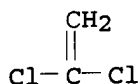
CRN 96-33-3

CMF C4 H6 O2



CM 4

CRN 75-35-4
CMF C2 H2 Cl2



L92 ANSWER 41 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1975:580224 HCAPLUS

DN 83:180224

TI Melamine resin adhesive solutions

IN Tsuruta, Kiyoshi; Hase, Yukimasa

PA Hohnen Oil Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 50058134	A	19750520	JP 1973-91936	19730816
	JP 51044545	B	19761129		
PRAI	JP 1973-91936	A	19730816		

AB Melamine resin adhesive solns. with improved initial bonding strength and pot life are prepared by mixing a crotonic acid-vinyl alc. graft copolymer (I) [31134-93-7]-modified melamine resin adhesive or a mixture of a urea resin adhesive and the modified resin adhesive, hardeners, pH buffer solns. and one or more extenders, fillers, and water until the pH of the resulting adhesive solns. became ≥ 6.4 . Thus, a mixture of melamine 160, 37.2% formalin 256, and MeOH 35.2 g was adjusted at 30° to pH 8.0 with 9.5% NaOH, mixed with 5 g I, and heated to 80°, the pH adjusted to 13.4 with 33% NaOH, the mixture heated 60 min at 80°, the pH adjusted to 9.0 at 60° with 12% formic acid, and the mixture cooled to 40°. The resulting I-modified HCHO-melamine resin [9003-08-1] adhesive was mixed (100 g) 15 min at room temperature with wheat flour 20, water 17, NH₄Cl 0.3, and Na₃PO₄·12H₂O 0.3 g to give an adhesive solution with pot life ≥ 120 min. The adhesive solution showed good initial bonding strength toward wood and was readily washable with water.

IC C09J; C08L; B27D

CC 36-3 (Plastics Manufacture and Processing)

ST melamine resin adhesive; crotonic acid copolymer adhesive; vinyl alc copolymer adhesive; pot life melamine adhesive; wood bonding melamine adhesive

IT Adhesives

(crotonic acid-vinyl alc. graft copolymer-formaldehyde-melamine polymer reaction products, for wood)

IT 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde, reaction products with crotonic acid-vinyl alcohol graft copolymers
Ethenol, polymer with 2-butenic acid, reaction products with formaldehyde-melamine polymers

RL: USES (Uses)

(graft, adhesives, for wood)

IT 31134-93-7D, 2-Butenoic acid, polymer with ethenol, reaction products with formaldehyde-melamine polymers

RL: USES (Uses)

(graft, adhesives, for wood)

IT 31134-93-7D, 2-Butenoic acid, polymer with ethenol, reaction products with formaldehyde-melamine polymers
 RL: USES (Uses)
 (graft, adhesives, for wood)

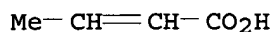
RN 31134-93-7 HCAPLUS

CN 2-Butenoic acid, polymer with ethenol (9CI) (CA INDEX NAME)

CM 1

CRN 3724-65-0

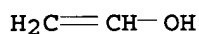
CMF C4 H6 O2



CM 2

CRN 557-75-5

CMF C2 H4 O



L92 ANSWER 42 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1972:565737 HCAPLUS

DN 77:165737

TI Adhesive sticks

IN Ando, Takuo; Yamazaki, Hiroyuki

PA Japan Synthetic Chemical Industry Co., Ltd.

SO Ger. Offen., 26 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2204482	A	19720817	DE 1972-2204482	19720131
	DE 2204482	B2	19771027		
	JP 50034581	B	19751110	JP 1971-4104	19710203
	JP 50035094	B	19751113	JP 1971-38019	19710531
	JP 48044332	A	19730626	JP 1971-38896	19710602
	JP 50035095	B	19751113		
	US 3846363	A	19741105	US 1972-221767	19720128
	GB 1374662	A	19741120	GB 1972-24939	19720526
	FR 2140138	B1	19780929	FR 1972-19550	19720531
PRAI	JP 1971-4104	A	19710203		
	JP 1971-38019	A	19710531		
	JP 1971-38896	A	19710602		

AB Adhesive sticks are prepared from a hydrolyzed crotonic acid-vinyl acetate copolymer (I) [25609-89-6], poly(vinylpyrrolidone) [9003-39-8], an Et acrylate-vinyl acetate copolymer [25190-97-0], and/or a similar polymer, water, organic solvents, and a reaction product of sorbitol (sometimes containing boric acid or borax) and BzH. The adhesive is hard and adherent over wide temperature and humidity ranges and is transparent in thin layers. Thus, a 4:96 I (60% vinyl acetate hydrolysis) 4, a sorbitol-BzH reaction product 1.5, glycerol 3, water 5, MeOH 3.5, and DMF 3.5 parts are

mixed at 80.deg., poured into a cylindrical holder, and cooled to prepare an adhesive stick.

IC C09J
 CC 37-3 (Plastics Fabrication and Uses)
 ST vinyl acetate copolymer adhesive; crotonic acid copolymer adhesive; polyvinylpyrrolidone adhesive stick; adhesive stick transparency; temp stability adhesive stick; sorbitol benzaldehyde adhesive stick
 IT Adhesives
 (sticks, containing benzaldehyde-sorbitol reaction products)
 IT 2,5-Furandione, polymer with ethenyl acetate, hydrolyzed
 Acetic acid ethenyl ester, homopolymer, hydrolyzed
 Acetic acid ethenyl ester, polymer with 2,5-furandione, hydrolyzed
 Acetic acid ethenyl ester, polymer with 2-butenic acid, hydrolyzed
 RL: USES (Uses)
 (adhesive sticks, containing benzaldehyde-sorbitol reaction products)
 IT 50-70-4D, D-Glucitol, reaction products with benzaldehyde 100-52-7D, Benzaldehyde, reaction products with sorbitol
 RL: USES (Uses)
 (adhesive sticks containing)
 IT 9002-89-5 9002-92-0 9003-20-7 9003-39-8 9011-16-9 24937-78-8
 25067-63-4 25609-89-6D, 2-Butenoic acid, polymer with ethenyl acetate, hydrolyzed
 RL: USES (Uses)
 (adhesive sticks, containing benzaldehyde-sorbitol reaction products)
 IT 25609-89-6D, 2-Butenoic acid, polymer with ethenyl acetate, hydrolyzed
 RL: USES (Uses)
 (adhesive sticks, containing benzaldehyde-sorbitol reaction products)
 RN 25609-89-6 HCAPLUS
 CN 2-Butenoic acid, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 3724-65-0

CMF C4 H6 O2

Me-CH=CH-CO₂H

CM 2

CRN 108-05-4

CMF C4 H6 O2

AcO-CH=CH₂

L92 ANSWER 43 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1970:122406 HCAPLUS
 DN 72:122406
 TI Ethylene-vinyl acetate copolymer prepared in the presence of minor amounts of butyraldehyde
 IN Beier, Gerhard; Bergmeister, Eduard; Wiest, Hubert
 PA Wacker-Chemie G.m.b.H.

SO U.S., 3 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3506630	A	19700414	US 1968-788049	19681230
	FR 1600554	A	19700727	FR 1968-1600554	19681227
	GB 1195816	A	19700624	GB 1969-1195816	19690211
	CH 498881	A	19701115	CH 1969-498881	19690219
PRAI	DE 1967-1745570	A	19680220		

AB Adhesive solns. were made from copolymers prepared from 30-80 mole % CH₂:CH₂ (I), 20-70 mole % CH₂:CH₂OAc (II) ≤10 mole % of which optionally was replaced by fumaric acid (III) 0.2-3.0% PrCHO (IV), and a redox polymerization catalyst containing (NH₄)₂S₂O₈ (V), H, and Pd with protective

colloids and emulsifiers. Thus, MeOH 20, Me cellulose 1.0, alkylbenzenesulfonate 0.8, Pd 0.00015, and V 0.3 part were mixed. Then, at pH 3, 60 parts II and 1% (based on II) IV were added, the autoclave was cooled to 10°, and 60 parts I added to a pressure of m50 atmospheric. Then, .apprx.1 atm excess pressure H was added and the mixture polymerized 15

hr at 10° to yield a I-II copolymer containing 36% I (K value 59); a 25% I- II solution in PhMe was clear. In contrast, when IV was replaced by equal amts. of EtCHO or MeCHO, only turbid solns. resulted; when IV was omitted an insol. I-II (K value >80) was formed. The procedure was repeated with the addition of 1.5 parts III to give soluble, cross-linkable I-II-III terpolymers. A contact adhesive was prepared from I-II (K value 58) 22, a modified phenolic resin (m. 140-60°, acid number 100) 13, EtOAc 40, PhMe 16, and C₆H₆ 10 parts; its peel and shear strengths were better than those of a conventional adhesive containing polychloroprene instead of I-II.

IC C08F

INCL 260080810

CC 36 (Plastics Manufacture and Processing)

ST ethylene vinyl acetate copolymers; vinyl acetate ethylene copolymers; fumaric terpolymers; butyraldehyde terpolymers; terpolymers butyraldehyde; adhesives contact

IT Adhesives, preparation

(ethylene-vinyl acetate polymers, in presence of butyraldehyde)

IT Polymerization

(redox, of ethylene with vinyl acetate in presence of butyraldehyde)

IT 123-72-8

RL: PROC (Process)

(ethylene-vinyl acetate polymers prepared in presence of)

IT 27308-79-8P, preparation

RL: PREP (Preparation)

(manufacture of, redox, in presence of butyraldehyde)

IT 24937-78-8P, preparation

RL: PREP (Preparation)

(redox, in presence of butyraldehyde, for adhesives)

IT 27308-79-8P, preparation

RL: PREP (Preparation)

(manufacture of, redox, in presence of butyraldehyde)

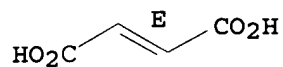
RN 27308-79-8 HCAPLUS

CN 2-Butenedioic acid (2E)-, polymer with ethene and ethenyl acetate (9CI)
(CA INDEX NAME)

CM 1

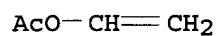
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



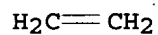
CM 2

CRN 108-05-4
CMF C4 H6 O2



CM 3

CRN 74-85-1
CMF C2 H4



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